



# FOOD SCIENCE AND NUTRITION 2020

FACULTY OF LIVESTOCK, FISHERIES AND NUTRITION  
WAYAMBA UNIVERSITY OF SRI LANKA



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## WHY CHOOSE FOOD SCIENCE AND NUTRITION?

B.Sc. in Food Science and Nutrition (BScFSN), a fulltime four year degree that provides a strong background in the principles underlying the food science & food technology and human nutrition. Food scientists need to undertake the development of new knowledge and technologies which turn raw materials into high quality and safe food products of optimal taste, texture and functionality. Nutrition scientists explore the relationship between diet and diseases and apply nutrition principles to achieve an optimum nutrition status and mental and physical well-being of people.





## OUR UNIVERSITY

The Wayamba University of Sri Lanka (WUSL) is well recognized as one of Sri Lanka's latest and modern learning and research institutions. WUSL is the leading education provider in Agriculture, Food & Nutrition, Applied Sciences, Business Studies & Finance, Technology and Medicine in Sri Lanka. The university has time to time introduced innovative job-oriented courses and curricular to cater to the needs of the stakeholders in many sectors. All degree programmes of WUSL are conducted in English and are well designed to equip students with information technology skills and mastery of English Language. Career guidance is given to all students beginning from the first year to focus well in their future careers. Today, nearly 4000 students are studying in the WUSL under the guidance of more than 160 academics.

## VISION

"To achieve and be recognized as a centre of excellence in higher education, research and development of technologies whilst training and developing human resources to meet national and global needs"

## MISSION

"To produce innovative, skilled and knowledgeable graduates who can give the lead in national and global development needs through formal educational programmes as well as to carry out research and development through outreach programmes in its mandated areas".



# OUR PROGRAMME

The 1st and 2nd year of the programme, termed "Level 1" is the core (common) programme which is designed to provide knowledge of basic science which will form the basis for subsequent study in specialization streams in 3rd (Level 2) and 4th year (Level 3). The students who follow the BScFSN degree programme have options in specializing in Applied Nutrition and Food Science & Technology.

Semester 1	Semester 2	Semester 3
General chemistry I	Organic chemistry for life sciences	Functional foods
Laboratory skills in chemistry Principles of biochemistry	Nutrition and metabolism Human physiology	Principles of economics Food processing and preservation
Food production systems	Introduction to food and nutrition	Concepts and practice of statistics
Orientation to food industry Mathematics I Applications of information technology	Principles of food science Principles of microbiology Special assignment (2-week attachment to stakeholder organization during vacation) Social harmony and conflict resolution	Human nutrition Academic English
English for science	English for communication	

# FOOD SCIENCE & TECHNOLOGY SPECIALIZATION (FST)

FST specialization is mainly concerned about using science in creative and innovative ways to create a healthier, safer, high-quality food supply. Feeding the world's population, which is expected to grow by 2.3 billion by 2050, will require raising food production by 70 percent. As a food scientist specializing in FST, you will learn how to contribute to feeding the world by designing new foods. You will also have the opportunity to explore new ways to process, package and preserve food to ensure its safety and quality.

Typical core modules offered in the FST specialization are shown below.

Year 2 (semester 4)	Year 3	Year 4
Post-harvest technology Food safety and quality management Food packaging technology	Food engineering Food chemistry	Research project Research methodology and scientific communication Organizational and human resource management Mass communication
Food analysis	Food microbiology	In-plant training Seminar
General chemistry II	Aquatic food processing technology Cereal science and bakery technology Dairy technology Sensory science	
Food biotechnology Food physics Academic English	Meat & egg processing technology Food business management and marketing Experimental design Food laws and regulatory systems Spectroscopic techniques for food science	
Professionalism and leadership		





## Applied Nutrition Specialization (NTN)

In the Applied Nutrition specialization, students will take a holistic look at nutrition. They will explore the various nutrients in food and learn about the behaviors and social factors behind the dietary choices we make. They will learn and create healthy meals, study how food can help prevent chronic diseases and have the chance to advise people across the lifespan who want to improve their overall health.

### Third Year

- Nutrition in Lifecycle
- Diet & Diseases
- Nutrition Assessment
- Sociology of Food & Nutrition
- Public Health & Community Nutrition
- Functional foods
- Medical Nutrition Therapy
- Sports & Exercise Nutrition
- Nutritional Epidemiology & Research Methods
- Communication and Health Promotion
- Food Toxicology
- Special Topics in Nutrition
- Food & Beverage Service Management

### Fourth Year

- Research Project in Applied Nutrition
- Field Assignment in Nutrition
- Practical Dietetics
- In-plant Training
- Dietetic Internship



# CAREER PROSPECTS

## Department of Food Science & Technology

The career prospects for graduates of this program are promising. As the demand for employees in this field is currently higher than the number of graduates from the program, the job market prospects are very wide. Most recent graduates have found positions in the private sector or at research institutions in Sri Lanka and abroad or continue studies at Wayamba University or other universities as master's students or doctoral students. Graduates also work in the field of process technology, innovative food companies or governmental agencies. Most graduates are promoted to management positions. Possible career prospects include food scientist/technologist, food science technician, consumer safety officer, food inspector, food policy analyst, quality assurance supervisor, research technician, product developer and food science/technology lecturer etc.

## Department of Applied Nutrition

The Applied Nutrition specialization is career-oriented and there's a great demand for our graduates. Students who excel in Nutrition are open for a wide range of careers within the food industry and health services. Graduates of nutrition specialization may gain employment in research institutes and with major food companies concerned with food production and processing or as trainee-dietitians/nutritionists in government and private hospitals in the country. Also, they have employment opportunities in various international & local non-governmental organizations involved in community development. Possible career paths of our graduates include positions as a nutritionist, dietitian, nutritional and health education/outreach professional, as well as medical, fitness and other health-related professionals. Since nutrition is a highly diverse field and a greatly expanding area, students may find career opportunities in education, commercial and corporate industries, as well as government and non-profit sectors. Our program further provides the basis for students to pursue postgraduate degrees in the fields of nutrition, public health nutrition, dietetics and food science and technology in well-reputed local and foreign universities and various higher education institutes.



# STUDENT VIEWS

Take a look at what our current undergraduate students have to say about the program. Our graduates work in the industry as food technologists, food scientists, technical consultants, product development managers and research and development directors and also in the academia as doctoral researchers, and senior lecturers.



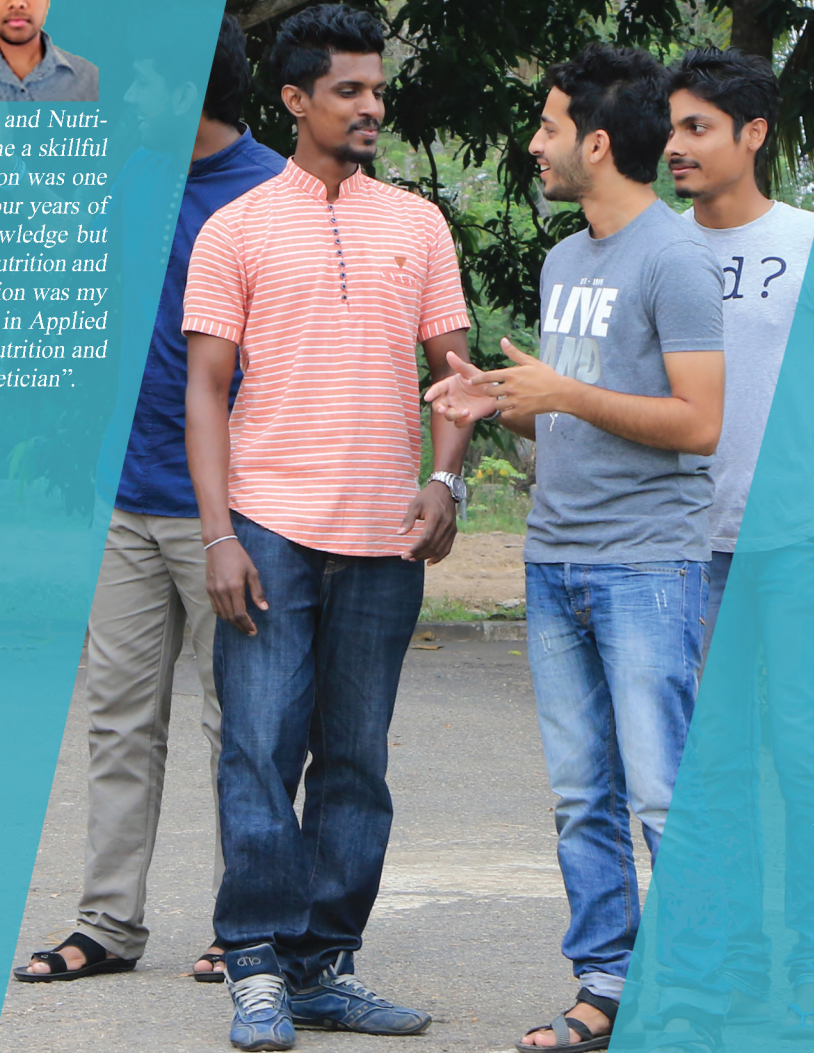
*“Starting professional learning with BSc in Food Science and Nutrition was the key foundation for my future as it has made me a skillful person and choosing Applied Nutrition for the specialization was one of my best decisions ever made in my life. Within these four years of university life, I have gained not only the theoretical knowledge but also an adequate level of practical exposure in the field of nutrition and doing the undergraduate research project in Applied Nutrition was my first step in the scientific research pathway. Specializing in Applied Nutrition also made me so eager to explore the world of nutrition and I’m hoping to develop my carrier as a Nutritionist and a Dietician”.*

Naveen Madhusanka Dharmasiri  
Final Year Student  
Applied Nutrition Specialization



*“The utilization of preventive characters of food to decrease diseases rather than utilizing the corrective characters of medicine has now become a leading trend in the world. As an undergraduate of Food Science and Nutrition, what brought me to select Applied Nutrition for my specialization was solely my interest towards the above said matter. Accordingly, now I am in the process of getting equipped with sound knowledge on nutrition, assessing nutritional status, application of nutrition at different life stages, sports, diseases and several other related aspects. These courses will not only mold us into knowledgeable future professionals, but also are helpful in maintaining good health in personal daily life”.*

Shashya Diyapaththugama  
3rd Year Student  
Applied Nutrition Specialization



*“Here at the Department of Food Science at Technology we are taught not just to take what is given, but to seek out knowledge and feed our curiosities. The department has an extremely knowledgeable panel of lecturers who are always willing to support the students and the course modules offered by DFST fully align with the degree program I am following. The state-of-the-art equipment and laboratories operating under the DFST gives the students a hands-on experience which is an invaluable opportunity for us as undergraduates.”*

Umesh Rajapakse  
3rd Year Student  
BSc in Food Science and Technology



*“I have enjoyed my degree very much, it has given me the opportunity to get involved in a wide variety of activities other than my academics. I was able to be an active member of a team, prepared a new whey based sparkling beverage to be presented at Pro food - Pro pack exhibition and was able to get first runner up prize. The biggest skill I have developed during my time at university is to correlate theories to real practices in food industry. University has given me the chance to build up self-confidence and experience team spirit. Currently I’m working on a project for the development of encapsulated flavonoids and then I’ll be able to enter the real competitive world with a semester of in-plant training program in Sri Lankan food industry.”*

Roshema Mel,  
Final Year Student  
Bsc Food Science & Technology



## YOUR ALUMNI NETWORK



“BSc in Food Science and Nutrition with Applied Nutrition Specialization was the foundation for my career as a registered dietitian and an academic. While the Dietetic internship led me to the shortest path of becoming a dietitian, Research project in Applied Nutrition was my inspiration for nutrition research at PhD level. The unique curriculum of Applied Nutrition not only taught me the ABCs in nutrition but also made me passionate to learn, teach and explore the power of nutrition in changing human lives”.

Jeewanadee Hettiarachchi, PhD Candidate, @AgeMelbourne,  
Department of Medicine and Aged Care, Faculty of Medi-



“Multidisciplinary learning and professional exposure I gained through this program put a solid foundation for my career. Today I work for an international development organization with a very high level of job satisfaction. Choosing Applied Nutrition specialization is one of my best decisions as it has made me 'special' in my sector who is technically capable not only in project management but also in nutrition”.

Nithya Seresinghe  
Monitoring & Evaluation Officer, ChildFund Sri Lanka



The choice of selecting Food Science and Technology specialization was the best decision made in my university life. The curriculum of the department plays special emphasis on establishment of a solid groundwork across diverse fields in Food Science. Meanwhile, our department always expose us to various practical opportunities such as individual projects, group projects, in-plant training and research projects to enhance the creative thinking, self-learning, problem solving ability and team work of students. Academic staff in the Department of Food Science and Technology are incredibly supportive and passionate about student success, students can always find a source of support and encouragement. It laid the foundation to start my career as a graduate student at North Dakota State University (NDSU) in United States.

Jayani Chathurika Sandarani  
Graduate Student (Cereal and Food Science)  
North Dakota State University, Fargo, United States



My name is Tharuka and I'm currently a second year joint-doctoral candidate between the Department of Plant Sciences, University of Adelaide, Australia and the Department of Food Sciences, University of Nottingham, UK. The knowledge, skills, and experiences that I acquired and the attitudes, perseverance and confidence that I was able to develop during my BSc. In Food Science & Nutrition (Specialized in Food Science and Technology) at WUSL has given me the capacity to secure a position in academia within a short period from graduation and helped me to have a smooth transition from an undergrad into an academic.

Tharuka Jayampathi  
BSc. Food Science & Nutrition  
PhD Candidate  
(University of Adelaide - University of Nottingham)



# DEPARTMENT HEADS' MESSAGES

## Department Food Science & Technology



*Department of Food Science and Technology (DFST) works with the mission of contributing to the society through the pursuit of education in Food Science and Technology in learning, disseminating knowledge and meeting international standards in research and teaching at the highest level of excellence.*

*Having realized the qualities and skills required from a food technologist by the food industry today, DFST has designed its syllabus to provide students with a sound theoretical knowledge in food science & technology as well as hands-on experience through practical training in food processing, product development and quality control. Department has already produced 66 graduates in its continuous process of producing skilled graduates to cater the demand in the food industry. Practical component of the degree program includes routine laboratory exercises conducted in the departmental laboratories, and field visits to reputed food processing plants.*

Dr. (Mrs) Shermila Eshwaran

## Department of Applied Nutrition



*The unique mission of the Department further extends to the improvement of nutrition and health status of the population in Sri Lanka not only via excellence in nutrition teaching and research, but also by training, community work and outreach activities. Moreover, the Department of Applied Nutrition provides technical guidance and consultations for the food and nutraceutical industry and local and international public and private sector organizations as a responsible partner in human nutrition of the local, regional and international communities”.*

*The Department of Applied Nutrition staff comprises of 2 professors, 6 senior lecturers, 2 lecturers and 1 probationary lecturer. Staff is well trained with 8 PhD holders and 9 MPhil/ Masters degree holders out of which 1 is currently reading for PhD. The staff has expertise in diverse branches of food and human nutrition and trained nationally and internationally on clinical and community nutrition. Importantly, majority (55%) of the academic staff is comprised of the Department Alumni*

Dr. (Mrs) Kumari M. Rathnayake



# Contact Us



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