

MSc in Nutrition and Lifestyle Medicine Proposed Module List

Module Code	Title	Description
MScNLM Core Modules		
NLM5001	Personalised Nutrition	This course delves into the intricate relationship between diet, omics, and health, exploring nutrigenomics, metabolomics, and microbiomes to tailor personalised nutrition plans. Emphasising a whole-food, plant-centric approach, students learn to optimise health outcomes by understanding individual characteristics and implementing precision nutrition strategies. Through a blend of theory and practical applications, topics include omics (e.g. genetics, metabolomics, and microbiome), and culturally relevant dietary recommendations with a focus on plant-forward diets. By integrating cutting-edge research and mindful eating practices, students emerge equipped to design bespoke nutrition plans that foster sustainable health and holistic lifestyle transformations.
NLM5002	Fundamentals of Nutrition and Lifestyle Medicine	This course provides a comprehensive introduction to the principles and practices of lifestyle medicine. Students explore the foundational pillars of lifestyle medicine, including nutrition, physical activity, stress management, sleep hygiene, and social support. Through a multidisciplinary approach, students investigate relationships between lifestyle factors and disease through epidemiology and biostatistics. Topics include analysing and interpreting research to understand disease distribution, etiology, risk factors, and treatment evaluation in the context of lifestyle medicine. By gaining skills in epidemiological data analysis and biostatistics, students are equipped to critically evaluate research and promote evidence-based lifestyle interventions for holistic wellness and healthier lives.
NLM5003	Lifestyle Medicine for Disease Prevention	This course delves into combating the global rise of non-communicable diseases through lifestyle medicine interventions. Students learn screening, evaluation, and management strategies to mitigate lifestyle-related diseases. Through critical analysis of interventions and case studies, students develop skills to design novel, evidence-based interventions targeting cardiometabolic diseases, obesity, and other conditions caused by lifestyle factors. Drawing from diverse sources such as scientific articles and case studies, students apply cutting-edge research to address the burden of chronic diseases. Graduates are equipped to promote health and wellness, making impactful contributions to disease prevention at individual and population levels.
NLM5004A	Capstone Project I	Capstone Project I offers students in the Master of Science in Nutrition and Lifestyle Medicine programme the opportunity to identify a host organisation and preceptor, develop their project scope, and gain hands-on experience in their area of interest. Students collaborate with their preceptor to undertake a novel project relevant to their MSc journey, culminating in a final presentation of their work.
NLM5004B	Capstone Project II	Capstone Project II is the culmination of the Master of Science in Nutrition and Lifestyle Medicine programme, where students finalise and present their capstone projects developed in Capstone Project I. Working closely with their host organisation and preceptor, students showcase their research and findings in a culminating presentation to the Nutrition and Lifestyle Medicine department.

MscNLM Elective Modules		
NLM5005	Culinary Medicine: From the Bench to the Plate	This course merges nutrition science with culinary arts, emphasising the "Food is Medicine" philosophy. Through interactive teaching kitchens, students learn healthy cooking techniques and explore medically tailored meals for specific health conditions. Developing basic culinary skills, students promote healthier eating habits, bridging the gap between nutrition knowledge and practical culinary application.
NLM5006	Exercise as Medicine: Bridging Research and Practice	This course explores exercise as a therapeutic tool, bridging research and practice. Students learn to utilise fitness trackers and wearables for activity monitoring, implement screening tools to assess fitness levels, and select outcome measures for evaluating exercise interventions. Understanding research methods in exercise science, students develop tailored exercise prescriptions to meet individual needs and goals.
NLM5007	Malnutrition Across the Life Course	This course delves into the multifaceted impact of malnutrition across various life stages. Students explore nutritional requirements during lactation, infancy, childhood, and ageing, addressing the long-term consequences of childhood malnutrition and the management of malnutrition in the elderly. With a focus on promoting optimal health outcomes across the life course, the course examines the interplay between malnutrition and bone health, providing a comprehensive understanding of the complexities of nutritional needs at different stages of life.
NLM5008	Nutrition, Lifestyle, and Intergenerational Impacts	This course delves into the intricate relationship between nutrition, lifestyle, and intergenerational health impacts. Students explore prenatal nutrition's influence on fetal development and delve into epigenetics, early childhood nutrition, and health disparities. Emphasis is placed on intergenerational health promotion strategies aimed at breaking cycles of poor health, offering insights into fostering lifelong wellness across generations.
NLM5009	Sleep, Stress, and Mental Health	This course delves into the intricate connections between sleep, stress, and mental health. Students explore mindfulness techniques for stress reduction, mental health epidemiology, and strategies for assessing wellbeing. Emphasis is placed on understanding the impact of stress on health outcomes, incorporating mindful eating practices, and developing life skills such as resilience and emotional regulation to enhance overall emotional wellbeing.

Food Science and Technology (FST) Elective List for Cross-Registration*

Module Code	Title	Description
FST5301A	Scientific Principles of Nutraceuticals	This course introduces oxidative stress and chronic inflammation as causative factors of chronic diseases in the context of how food constituents may act as dietary antioxidants and anti-inflammatory agents in mitigating the negative effects of oxidative stress and inflammation on development of chronic diseases such as type II diabetes, cardiovascular diseases, cancer, and ageing. It discusses the chemical and biological mechanisms of the phytochemicals underpin their purported health promotion effects. It analyses the scopes and limitations of various research methods applied for establishment of scientific evidence as well as the global regulatory policies for health claims of functional foods.
FST5302	Food, Nutrition, and Health	Food Science and Technology has been instrumental in the advancement and production of safe and nutritious food and food products. While food is essential for life, the influence of food composition on health includes not only macro- and micro-nutrients but also other components such as flavonoids, sweeteners and additives. The nutritional requirement at different life stages will also be discussed. This course is targeted at students who do not have a background in nutrition but currently work, or plan to work, in the food industry.
FST5303A	Science in Clinical Nutrition	This course informs students in the scientific basis which underlies new dietary strategies to manage health and diseases. The interplay between an individual's disease status, microbiome and neuro-physiological state with the diet is investigated and their impact on our general health and susceptibility to diseases at the population and individual level is discussed. Other emerging topics in advanced nutritional research, chrono-nutrition, dietary restriction and design of personalized foods and diet, is also covered.

School of Public Health (SPH) Elective List for Cross-Registration*

Module Code	Title	Description
SPH5202	Control of Non-Communicable Diseases	This course showcases the application of epidemiology to the study of non-communicable diseases. We will cover how epidemiological principles and methods inform our understanding of the burden and determinants of some major non-communicable diseases as well as the choice of the most appropriate strategies at each level of prevention, with an emphasis on primary prevention.
SPH5408	Public Health and Ageing	In this course, an overview of the ageing population and its increasing relevance for public health planning and policy, both in Singapore and internationally. Major topics include demography of ageing, normal (physiological and biological) and abnormal (physical and mental) ageing, prevention of ageing-related diseases and compression of morbidity, health and social services and policies for older persons, and medico-legal and ethical issues of care for the older persons. Students will learn how to apply their knowledge to critically appraise health and social programmes and policies for older persons and apply medico-legal and ethical principles in the care for older persons.
SPH5413	Women's, Children's and Adolescents' Health	Investing in the health of women, children and adolescents is critical for every nation's development. The course applies a life-course perspective to critically explore the issues affecting the health of mothers, young children and adolescents. We will examine the socioeconomic, behavioural and political determinants of maternal, child and adolescent health, as well as policies, programs and services to reach them. The challenges, strategies and potential innovations to more effectively improve their health and wellbeing will be a major focus. These will be linked to global efforts towards achieving the Sustainable Development Goals (SDGs) related to health and well-being, education, gender equity, and poverty reduction.

SPH5417	Fundamentals of Population Health	Population Health is a distinguishing domain within the field of public health, which focuses on the greater social determinants and drivers of health. In understanding Population Health, one takes a systems-approach in examining the socioeconomic factors and the physical environment that influence the health and wellness for the whole of population, going beyond individualised medical healthcare for the sick. Population Health takes a broader societal view and more of a multi-disciplinary approach than the other public health domains. This course will build up the fundamental theoretical concepts and knowledge base for how to improve the health of the population.
SPH5418	Public Health Policy: A Systems Approach	In today's dynamic public health landscape, practitioners must be adept at viewing public health challenges through a systems lens, recognising the interconnections and feedback loops inherent in policy design, execution and evaluation. This course offers an immersive exploration of current public health policies, uniquely weaving in the principles of systems thinking to equip students with both theoretical insights and practical tools. The course prepares students to lead with agility, ensuring they can both shape and respond to the ever-evolving demands of Public Health policy with a comprehensive, systems-oriented perspective.

**Students may cross register up to 2 Electives from FST or SPH*