



**Faculty of Agricultural
and Food Sciences**
Department of Nutrition
and Food Sciences

Healthy Earth, Healthy Food, Healthy People



Department of Nutrition & Food Sciences



About the Department

NFSC is a leader in nutritional and food science research and education in Lebanon and the region. It fosters a multidisciplinary approach to basic, clinical, and translational research with an emphasis on:

- Food consumption practices
- Nutritional assessment
- Food safety
- Quality of traditional foods
- Consumer studies
- Community nutrition in underprivileged groups
- Diet-related non-communicable diseases
- Associated genetic traits underlying nutrition and obesity-related health problems

The Department has a distinguished and accomplished history in the area of Nutrition and Food Science that began in conjunction with the establishment of FAFS.



About the Department (continued)

- The NFSC department houses 7 programs with 1 offered jointly with the Faculty of Health Sciences:

Undergraduate Programs	Graduate Programs
Nutrition & Dietetics (NTDT; 3-yr.)	Nutrition
Nutrition & Dietetics Coordinated Program (NTDT; 4-yr.)	Food Technology
Food Science and Management (FSMT)	Food Safety (New)
	Public Health Nutrition (New-offered jointly with FHS)

- The undergraduate and graduate enrollments (For the past 4 years) were :

	2013-2014	2014-2015	2015-2016	2016-2017
FTCH	18	15	19	19
NUTR	36	30	21	27
GR	54	45	40	46
FSMT	74	85	77	79
NTCP	15	44	44	30
NTDT	176	143	141	134
NWAG	2	7	5	11
UG	267	279	267	254



NFSC- Mission & Vision

- **Mission:** The Department is committed to creative and high quality education, innovative research, and effective outreach programs in nutrition, dietetics and food science. The Department strives to produce skilled graduates poised to assume leadership in professional settings and dedicated to the welfare and advancement of the quality of life of citizens in Lebanon, the Middle East, and the world.
- **Vision:** To be recognized as a center of excellence in teaching, research and outreach in nutrition, dietetics and food science





NFSC Faculty Members

RESEARCH INITIATIVES



Professor



Dr. Nahla Hwalla

Human Nutrition

Research Main Focus:

- Food and Nutrition Security
- Obesity
- Environment & Sustainability

Research Outcome:

- Research addressing food consumption patterns and food security
- Prevalence, determinants and holistic food system approach for intervention
- Environmental Footprint (EFP) of healthy diets and impact of change to healthy diets
- Nutrition transition: impact of current consumption on EFP
- Adherence to Mediterranean Diet as a healthy and sustainable diet by Lebanese population



Professor



Dr. Omar Obeid

Human Nutrition & Metabolism

Research Main Focus:

Micronutrients and Body Metabolism -
Human and Animal Experiments

Research Outcome:

- Role and effect of Phosphorus
- Iodine status in the Lebanese population
- Iron absorption in relation with inflammation

Future Projects:

Regional Iodine laboratory

Regional double labeled water laboratory



Associate Professor



Dr. Lara Nasreddine

Nutrition & Food Toxicology

Research Main Focus:

Food consumption practices, dietary intakes and cardiometabolic diseases (CMDs)

Research Outcome:

- Assessment of food consumption practices and dietary intakes
- Assessment of dietary exposure to food contaminants (heavy metals, pesticide residues, mycotoxins...)
- Association of obesity and cardiometabolic diseases with food consumption practices and dietary intakes
- Development of dietary intervention strategies for the prevention of obesity and cardio-metabolic diseases (CMDs).



Associate Professor



Dr. Farah Naja

Nutritional Sciences

Research Main Focus:

Explore the sustainability of dietary patterns, in function of: Environmental footprints (water and energy use, GHGe) Economic cost.

Research Outcome:

- Investigate dietary patterns prevalent in the population and examine their association with cardio metabolic risk factors



Assistant Professor



Dr. Lamis Jomaa

Nutritional Sciences

Research Main Focus:

Agriculture, **Environmental Sustainability**, **Food Consumption**, Nutrition, Food Production, and Sustainability

Research Outcome:

- **Household Food insecurity in greater Beirut area**
- **Mapping dietary patterns to environmental sustainability**
- Sustainability development & validation
- Agriculture development & validation



Assistant Professor



Dr. Elie-Jacques Fares

**Metabolic Phenotyping,
Nutrition, & Physical
Activity**

Research Main Focus:

Understanding the role of variations in metabolic efficiency (thermogenesis) in the regulation of body weight, body composition, and exercise economy.

Research Outcome:

- Identifying the impact of diet-induced alterations in **thermogenesis on body composition and early development of metabolic syndrome.**
- **Providing supplement guidelines** as modulators of thermogenesis, fat oxidation and cardiovascular functions **(i.e. exercise performance).**



Associate Professor



Dr. Samer Kharroubi

**Bayesian Statistics,
Biostatistics, & Health
Economics**

Research Main Focus:

- **Cost-effectiveness analyses in Lebanese public health system.**
- Introduce preference-based health state measures to the Lebanese healthcare and economic sectors.

Research Outcome:

- **Use of economic models in health related quality of life (HRQoL) data in Lebanon.**
- Establish an evidence-based **decision-making for the implementation of a health promotion structure in Lebanon and Arab countries.**



**Professor
&
Department Chair**



Dr. Imad Toufeili

Food Chemistry

Research Main Focus:

Conduct studies on the composition of traditional foods and dietary components of potential health effects on the population.

Research Outcome:

- Quality and antioxidant capacity of Lebanese honey and carob.
- Antioxidant levels of locally consumed diets.
- *Trans* fatty acids levels in local foods.
- Salt contents of traditional breads and dairy products.



Professor & Associate Dean of FAFS



Dr. Ammar Olabi

Sensory Evaluation & Product Development

Research Main Focus:

- Food acceptability and its influencing factors
- Sensory evaluation and product development of dairy products
- Sensory evaluation in health research

Research Outcome:

- Shelf life studies on local dairy products
- The effect of salt reduction on quality of Arabic bread and local cheeses
- Assessment of the effect of weight-loss surgery on taste acuity and food preferences



Associate Professor



Dr. Mohamad Abiad

Food Processing & Packaging

Research Main Focus:

Reducing and reusing food wastes

Research Outcome:

- Reducing and reusing food losses and wastes generated by the agro-food industry through improved processing technologies and the development of new innovative products



Assistant Professor



Dr. Issmat Kassem

Food Microbiology

Research Main Focus:

Food Safety, Water Quality, and the Threat of Antimicrobial Resistance

Research Outcome:

- Establish base-lines for **major bacterial foodborne pathogens and associated antimicrobial resistance in economically-sensitive food systems** and devise appropriate critical controls.
- Establish a guideline to **enhance the microbiological quality of irrigation and potable water** to enhance the safety of fresh produce and biosecurity on animal farms.
- **Introduce antibiotic alternatives to enhance agricultural productivity, including the use of probiotics to increase growth-performance and immunity of food-animals.**



Thank you

