Department of Nutrition and Food Science (NFSC)

Chairperson: Toufeili, Imad
Professors: Hwalla, Nahla; Tannous, Raja; Toufeili, Imad
Associate Professor: Obeid, Omar
Assistant Professors: Batal, Malek; Ghaddar, Sana; Kassaify, Zeina; Olabi, Ammar
Instructors: Chamieh, Marie Claire; Hamadeh, Basma; Habib-Mrad, Carla; Zablith, Nadine; Zeidan-Nabahani, Maya

The mission of the Department of Nutrition and Food Science is to produce qualified graduates capable of serving the region in various areas of food science, nutrition, and dietetics.

The department offers a graduate program leading to the MS degree in either food technology or nutrition (thesis or non-thesis). The nutrition degree is also offered under the Interfaculty Graduate Nutrition Program. (For more details refer to the nutrition program on pages 409, 410)

Graduate Programs

Programs leading to the MS degree, thesis and non-thesis options, are offered in two majors: nutrition and food technology. The specific areas of research in nutrition include clinical nutrition, community nutrition, and food service management. Areas of emphasis for research within the Food Technology major include food processing, sensory and food analysis, food microbiology, and food safety.

MS in Nutrition

Core Courses (Thesis)

AGSC 301  Statistical Methods in Agriculture 2.3; 3 cr.
An investigation of the statistical techniques needed to design experiments and analyze and interpret agricultural research data. Prerequisite: STAT 210 and CMPS 209. Fall and spring.

NFSC 311  Advanced Nutrition: Macro Nutrients 3.0; 3 cr.
Advances in carbohydrate, protein, lipid, fiber and ethanol nutrition, and metabolism. Prerequisite: NFSC 274.

NFSC 314  Advanced Nutrition: Minerals 3.0; 3 cr.
Advanced nutritional, biochemical, and physiological aspects of macro- and micro-mineral elements, and toxic elements in humans. Prerequisite: NFSC 274.

Elective Courses for the MS Degree in Nutrition

NFSC 306  Community Nutrition: Research and Intervention 3.0; 3 cr.
Identification and assessment of nutritional status in the community, nutritional surveys, program development, nutritional education planning policies, and nutritional ecology. Prerequisite: NFSC 221 or NFSC 274.

NFSC 308  Advanced Therapeutic Nutrition 3.0; 3 cr.
Advances in nutritional care, metabolic changes, and dietary management of diseases. Prerequisite: NFSC 274.

NFSC 310  Advanced Food Biochemistry 3.0; 3 cr.
Study of food enzymes, lipid oxidation in foods and biological systems, and genetically modified food. Prerequisite: NFSC 261.

NFSC 312  Sports Nutrition 3.0; 3 cr.
Nutritional needs for the various types of athletic performance, and selected ergogenic and ergolytic supplements as related to physical performance.
NFSC 351  Food Safety: Contaminants and Toxins  3.0; 3 cr.
General principles of food toxicology with emphasis on toxic constituents in plant, animal, marine, and fungal origin, contaminants and food processing induced toxins. Risk characterization and laws and regulation of food safety.

MS in Food Technology

Core Courses (Thesis)

AGSC 301  Statistical Methods in Agriculture  2.3; 3 cr.
An investigation of the statistical techniques needed to design experiments and analyze and interpret agricultural research data. Prerequisites: STAT 210 and CMPS 209. Fall and spring.

NFSC 305  Sensory Evaluation of Food  3.0; 3 cr.
Designed to help the food scientist solve typical sensory problems; select appropriate panelists for specific sensory tests; and conduct such tests, analyze and interpret the results, and write a report. Prerequisite: STAT 210 or EDUC 227.

NFSC 310  Advanced Food Biochemistry  3.0; 3 cr.
Study of food enzymes, lipid oxidation in foods and biological systems, and genetically modified food. Prerequisite: NFSC 261.

NFSC 351  Food Safety: Contaminants and Toxins  3.0; 3 cr.
General principles of food toxicology with emphasis on toxic constituents in plant, animal, marine, and fungal origin, contaminants and food processing induced toxins. Risk characterization and laws and regulation of food safety.

NFSC 370  Food Product Development  3.0; 3 cr.
To learn the chemical and physical properties of food ingredients. To apply the product development process from idea generation to marketing. Prerequisite: NFSC 287.

NFSC 395  Graduate Seminar in Nutrition and Food Science  1.0; 1 cr.

NFSC 399  MS Thesis

Elective Courses for the MS Degree in Food Technology

Any course approved by the Supervisory Committee.

NFSC 302  Dairy Technology  2.3; 3 cr.
The chemistry, technology, and processing of milk and milk products. Prerequisite: NFSC 288.

NFSC 306  Community Nutrition: Research and Intervention  3.0; 3 cr.
Identification and assessment of nutritional status in the community, nutritional surveys, program development, nutritional education planning policies, and nutritional ecology. Prerequisite: NFSC 221 or NFSC 274.

NFSC 308  Advanced Therapeutic Nutrition  3.0; 3 cr.
Advances in nutritional care, metabolic changes, and dietary management of diseases. Prerequisite: NFSC 274.

NFSC 312  Sports Nutrition  3.0; 3 cr.
Nutritional needs for the various types of athletic performance, and selected ergogenic and ergolytic supplements as related to physical performance.

NFSC 314  Advanced Nutrition: Minerals  3.0; 3 cr.
Advanced nutritional, biochemical, and physiological aspects of macro- and micro-mineral elements, and toxic elements in humans. Prerequisite: NFSC 274.

NFSC 315  Advanced Nutrition: Vitamins  3.0; 3 cr.
Advanced nutritional, biochemical, and physiological aspects of vitamins and vitamin-like substances in humans. Prerequisite: NFSC 274.
NFSC 371  Food Engineering  3.0; 3 cr.
Basic concepts and principles of food engineering and their applications; focus on engineering
design and analysis of unit operations common to food processing.  Prerequisite: NFSC 291.

NFSC 391  Laboratory Methods in Nutrition and Food Science  1.6; 3 cr.
Principles of animal experiments, analytical techniques, and instrumentation used in nutrition and
food science research studies.  Prerequisite: NFSC 267.