

Department of Nutrition and Food Sciences (NFSC)

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Undergraduate Program

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 participates in offering courses within the FAFS undergraduate core program and, in addition, offers junior and senior courses that cover areas of major importance in food science, nutrition, and dietetics.

The department offers two three-year programs, one leading to a BS degree in Nutrition and Dietetics, and the other leading to a BS degree in Food Science and Management. Graduates wishing to qualify as licensed dietitians should complete an Internship for a minimum of six months in a recognized medical setting.

In addition, the department offers a Coordinated Program in Nutrition and Dietetics (CP) which combines the didactic three year Nutrition and Dietetics Program with an additional year of supervised practice. The CP provides students who complete it with the academic and supervised practice requirements established by the Commission on Accreditation for Dietetics Education (CADE) of the American Dietetic Association (ADA) for entry level dietitians.

Students who intend ultimately to enter the Faculty of Medicine must complete the premedical requirements as outlined in the AUB catalogue Faculty of Arts and Sciences section titled Premedical Study. Graduates of these programs do not receive the Diploma of Ingénieur Agricole.

The following courses are offered by the department:

Course Descriptions

Core Courses for the BS Degree in Nutrition and Dietetics

- NFSC 221 Basic Nutrition 3.0; 3 cr.**
Nutritional survey of nutrients, including their food sources, digestion, metabolism, functions, and requirements in humans. *Course offered in fall and spring.*
- NFSC 222 Community Nutrition 3.0; 3 cr.**
An introduction to key concepts and current topics in community nutrition. Discusses the role of nutrition in improving the health and well being of communities and familiarizes students with population nutritional status assessment, principles of nutrition research, and factors involved in planning, implementing and evaluating community nutrition programs and policies. *Prerequisites: NFSC 221, and NFSC 285.*
- NFSC 240 Nutritional Status Assessment 1.3; 2 cr.**
Exposes students to the theoretical basis of various aspects of nutritional assessment (counseling dietary assessment, anthropometric measurement, biochemical assays, and clinical assessment). The course also familiarizes students with nutritional status assessment tools and techniques through practical experimentation in the lab. *Prerequisite: NFSC 221; Pre- or co-requisite: NFSC 274.*
- NFSC 261 Introductory Biochemistry 3.0; 3 cr.**
Chemistry of biological compounds, their enzymatic degradation and intermediary metabolism. *Prerequisite: CHEM 208. Course offered in fall and spring.*
- NFSC 265 Food Chemistry 3.0; 3 cr.**
Chemical composition, physical and sensory properties of foods. *Prerequisite: CHEM 208. Course offered in fall and spring.*
- NFSC 267 Food Analysis 1.3; 2 cr.**
Laboratory methods for chemical analysis of nutrients and chemicals in food products. *Prerequisites: CHEM 205, CHEM 209; Pre- or co-requisite: NFSC 265. Course offered in fall and spring.*
- NFSC 274 Human Nutrition 3.0; 3 cr.**
Human physiological needs for energy, carbohydrates, fats, proteins, vitamins, and minerals; control of nutrient metabolism. *Prerequisites: NFSC 221, NFSC 261, and PHYL 246.*
- NFSC 277 Food Microbiology I 3.0; 3 cr.**
A survey of micro-organisms and their role in causing food spoilage and food poisoning, and the control of microbial spoilage and pathogenic micro-organisms in foods.
- NFSC 285 Nutrition in the Life Cycle 2.3; 3 cr.**
Focuses on the basic nutritional needs of individuals throughout their life cycle: infancy, childhood, adolescence, adulthood, and old age, and special nutritional requirements for pregnancy and lactation. *Prerequisites: NFSC 221 and NFSC 274.*
- NFSC 287 Food Processing 2.0; 2 cr.**
Technology and processing of foods; includes processing food products in the Pilot Plant. *Prerequisites: NFSC 265, ND III or FSM III.*

NFSC 289 **Food Processing Laboratory** **0.3; 1 cr.**
Laboratory exercises in the Pilot Plant in food preservation, preparation and processing. *Co-requisites: NFSC 287, ND III or FSM III.*

NFSC 290 **Food Service Management** **2.3; 3 cr.**
Techniques of management of functional operation of food service; field trips, self-study modules, reports, and discussion. *Prerequisites: MNGT 215 and NFSC 221.*

NFSC 292 **Medical Nutrition Therapy I** **3.0; 3 cr.**
Examines selected metabolic diseases, HIV, and cancer by covering their etiology, metabolic pathways, and the importance of medical nutrition therapy. *Prerequisites: NFSC 240, NFSC 274 and NFSC 285.*

NFSC 293 **Medical Nutrition Therapy II** **3.0; 3 cr.**
A thorough review of the nutrition care process in the treatment of diet-related diseases. The course prepares students to implement the nutrition care process for various conditions, including but not limited to overweight and obesity, diabetes, cardiovascular, gastrointestinal and renal diseases and helps students: 1) understand the pathophysiology of selected diseases in which nutritional intervention plays a major role; 2) identify the nutritional needs of patients with disease; and 3) develop an appropriate patient nutrition care plan. *Prerequisites: NFSC 274, NFSC 240 and NSFC 285.*

NFSC 294 **Medical Nutrition Therapy Laboratory I** **0.3; 1 cr.**
Self-study modules, case studies, reports, and discussions of NFSC 292 topics. *Co-requisite: NFSC 292. Prerequisite: NFSC 285.*

NFSC 295 **Medical Nutrition Therapy Laboratory II** **0.3; 1 cr.**
Self-study modules, case studies, reports, and discussions of NFSC 293 topics. *Co-requisite: NFSC 293.*

NFSC 296 **Current Topics in Food Sciences and Nutrition** **1 cr.**
Prerequisite: ND III. Course offered in fall and spring.

NFSC 299 **Projects in Nutrition and Food Sciences** **2 cr.**
Directed study. Tutorial. *Prerequisite: ND III.*

In addition to the requirements for the BS degree in Nutrition and Dietetics, students accepted in the Coordinated Program should complete the following:

NFSC 283 **Nutrition Education and Communication** **3 cr.**
Focuses on principles of health behavior, learning theories and their application to nutrition education and nutrition counseling practice. Equips students with the necessary communication tools and techniques to help prevent nutrition-related disease and promote health.

NFSC 284 **Seminar in Clinical Dietetics** **1 cr.**
This course focuses on developing the communication and research skills as well as strengthening the critical thinking capacities of CP students undergoing an intensive internship program, by providing them the opportunity to present and discuss all interesting nutritional issues arising during their CP practicum. It is divided into NFSC 284A and 284B.

NFSC 298 **Dietetic Practicum** **28 cr.**
Training for nine months at an affiliated medical facility.

Core Courses for the BS Degree in Food Science and Management

NFSC 261 **Introductory Biochemistry** **3.0; 3 cr.**
Chemistry of biological compounds, their enzymatic degradation, and intermediary metabolism.
Prerequisite: CHEM 208. Course offered in fall and spring.

NFSC 265 **Food Chemistry** **3.0; 3 cr.**
Chemical composition, physical and sensory properties of foods. *Prerequisite: CHEM 208. Course offered in fall and spring.*

NFSC 267 **Food Analysis** **1.3; 2 cr.**
Laboratory methods for chemical analysis of nutrients and chemicals in food products. *Prerequisites: CHEM 205, CHEM 209; Pre- or co-requisite: NFSC 265. Course offered in fall and spring.*

NFSC 272 **Introduction to Food Service and Industries** **1.3; 2 cr.**
An introduction to food service and the food industry. This course explains the food chain system, and describes the food service institutions and the different food industries; it also includes visits to different institutions in the food chain. *Prerequisites: NFSC 265 and NFSC 277.*

NFSC 277 **Food Microbiology I** **3.0; 3 cr.**
A survey of micro-organisms and their role in causing food spoilage and food poisoning, and the control of microbial spoilage and pathogenic micro-organisms in foods.

NFSC 278 **Food Microbiology II** **2.3; 3 cr.**
Microbiological aspects of food preservation; beneficial utilization of micro-organisms in food applications; detection of microbial contamination and hazards of importance to public health.
Prerequisite: NFSC 277.

NFSC 280 **Summer Training in Food Establishments** **1 cr.**
Involves students in supervised training in one of the food service institutions or food industries.
Prerequisite: NFSC 272.

NFSC 282 **Food Quality Management** **2.0; 2 cr.**
Basic principles of food quality control, quality assurance, and quality management in food service establishments and food industries; emphasis on modern concepts such as HACCP, ISO 9000, and Good Manufacturing Practices.

NFSC 287 **Food Processing** **2.0; 2 cr.**
Technology and processing of foods; includes processing food products in the Pilot Plant.
Prerequisites: NFSC 265, ND III or FSM III.

NFSC 288 **Technology of Food Products** **2.3; 3 cr.**
Principle of food spoilage, food preservation, and the different methods of food processing.
Prerequisites: NFSC 261, ND III, FSM III or AGR IV.

NFSC 289 **Food Processing Laboratory** **0.3; 1 cr.**
Laboratory exercises in the Pilot Plant in food preservation and processing. *Co-requisite: NFSC 287, ND III or FSM III.*

NFSC 291 **Elements of Food Engineering** **3.0; 3 cr.**
Basic concepts and principles of food engineering; emphasis on food handling and unit operations utilized in food processing. *Prerequisites: MATH 204, FSM III.*

NFSC 296 **Current Topics in Food Sciences and Nutrition** **1 cr.**
Prerequisite: ND III or FSM III. Course offered in fall and spring.

NFSC 299 **Projects in Nutrition and Food Sciences** **2 cr.**
Directed study. Tutorial. *Prerequisite: ND III or FSM III.*

Core Course for the BS Degree in Agribusiness

NFSC 252 **Food Processing** **3.0; 3 cr.**
Technology and processing of foods; includes processing food products in AREC. *Prerequisite: Junior status standing.*

Elective Course not for Nutrition and Dietetics or Food Science and Management

NFSC 220 **Food and Nutrition Awareness** **3.0; 3 cr.**
Introduces the discipline of nutrition and assists students in making optimal food choices for better health. *Free elective.*