

# Department of Nutrition and Food Science (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 professional dietitians must complete the Dietetics Internship 01936 program by spending eleven months in the dietary department of the AUB Medical Center or at another qualified and approved hospital to acquire practical training in administrative and therapeutic dietetics. 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.**  
The role of nutrition in promoting, maintaining, and improving health in the community. The course discusses methods for discovering community problems and the practical application of nutrition information for improvement of the nutritional status of the population. *Prerequisite: NFSC 221.*

**NFSC 240 Nutritional Status Assessment 1.3; 2 cr.**  
Exposes students to the theoretical basis of various aspects of nutritional counseling and assessment (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 corequisite: 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 corequisite: NFSC 265. Course offered in fall and spring.*

**NFSC 274 Human Nutrition and Metabolism 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. *Corequisites: 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 Therapeutic Nutrition 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 and NFSC 274.*

**NFSC 293 Therapeutic Nutrition II 3.0; 3 cr.**  
Process of assessing nutritional status and identifying nutritional needs; and nutritional care in various diseases. *Prerequisites: NFSC 274 and NFSC 240.*

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

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

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

**NFSC 298 Dietetics Internship 01936 0 cr.**  
Training for eleven months in the dietary department of the AUB Medical Center.

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

### 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 corequisite: 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. *Corequisite: 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 Seminar Presentation in Food Sciences and Nutrition 1 cr.**  
*Prerequisite: ND III or FSM III. Course offered in fall and spring.*

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

### Elective Course for the BS Degree in Nutrition and Dietetics

**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.*