

Human Nutrition Program

Introduction

The Human Nutrition Program is concerned with providing information in the field of human nutrition (human nutrition) by teaching courses related to the fundamental sciences of nutrition and conducting applied nutrition research, so that graduates understand the relationships between nutrition, health, and disease. The Nutrition curriculum gives students a comprehensive grasp of the critical role that proper nutrition plays in preventing, developing, and treating most major diseases, as well as boosting health and community well-being. This curriculum also provides students with extensive understanding in the disciplines of individual and societal nutrition, food science, and public health during their focused study. Students will be well-informed about the relationship between food, nutrition, and human health. Courses are designed to provide graduates with the information and abilities required to lay the groundwork for a variety of employment in nutrition, dietetics, and food services. The program focuses on teaching courses in human nutrition (individual and community), food safety, and continuous training in the field of preparing meals and evaluating the nutritional status of the individual and society, with the goal of meeting the nutritional needs of the individual throughout life in health and illness, as well as spreading awareness and food culture in society. The curriculum also focuses on teaching students at one of the specialty's institutions how to prepare meals according to the highest international standards, assess nutritional status, and provide nutritional care to individuals and society in health and disease. He is especially interested in equipping students with the skills they need to work in human nutrition institutions (individual and societal), nutrition departments in hospitals, food control and standards agencies, nutrition and medicine, universities, and scientific research centers. The program was created and produced in compliance with Arab and international university references for the relevant programs, departments, and colleges.

Department Aims:

1. Preparing qualified cadres in the fields of food science and nutrition who can meet the demands of the labor market and serve the community while maintaining a strong connection with them.
2. Conducting scientific research related to nutrition, food technology, and dairy industries and studies to contribute to improving nutrition and developing food processing, thereby enhancing self-sufficiency and achieving food security.
3. Developing students' abilities and skills to raise nutritional awareness in the community and participate in development and interaction with the environment.
4. Establishing links between research, scientific activities, and community service by creating channels of cooperation and communication with government agencies, the private sector, research centers, and relevant local and international organizations.
5. Organizing scientific conferences, seminars, and training courses to enhance the competence of graduates and employees.

6. Exchanging scientific expertise with Arab and international universities in the field of food and nutrition, providing technical consultations, and conducting specialized scientific studies that meet the requirements of the labor market and serve the community.
7. Strengthening cooperation and coordination with international organizations and bodies related to the field.
8. Solving problems related to increasing production while ensuring quality and safety in the food and dairy industries based on modern scientific principles that align with the requirements of the local and global markets.

Program Mission:

Preparing highly qualified human nutrition cadres with scientific and practical expertise, enabling them to compete locally, regionally, and internationally, through the delivery of exceptional academic programs that adhere to the highest standards of quality in education and scientific research, meeting the needs of society and the labor market.

Program Aims:

To achieve the mission of the Human Nutrition Program, the following aims must be attained:

1. Qualifying scientifically specialized cadres in the field of nutrition sciences according to the local and international standards adopted in this field to meet the needs of the labor market, serve the community, and contribute to achieving food security.
2. Raising awareness about the importance of healthy nutrition and the role of nutrition specialists in the community, facilitating the work of institutions and organizations operating in the country.
3. Providing a foundation for applied knowledge in nutrition and offering awareness and counseling in the field of balanced nutrition sciences.
4. Conducting scientifically specialized research and developing applied research to contribute to solving problems related to food and nutrition topics.
5. Establishing channels of cooperation and communication with government agencies, the private sector, research centers, and relevant organizations domestically and internationally to promote scientific research in the field of nutrition sciences.
6. Educating the community about healthy food, nutritional care, special dietary regimens, malnutrition diseases, and epidemiology through conferences, workshops, seminars, and local and international training programs.

Graduate Attributes:

Upon successful completion of the program, the graduates are expected to be able to:

- Understand and analyze complex food and nutrition issues.

- Comprehend and synthesize the functions of essential nutrients and their effects on various body organs.
- Provide the community with comprehensive nutrition counseling, conduct thorough nutritional assessments, and recommend evidence-based interventions.
- Conduct relevant research and keep up with scientific advancements in the field of nutrition.
- Serve the community in various settings such as hospitals, health centers, tourism and hospitality, and food and nutrition-related organizations.
- Foster a nutritionally educated and healthy generation, thereby contributing to reducing healthcare costs.

Program Intended Learning Outcomes (PILOs):

A. Knowledge and Understanding

- A1. Understand the fundamentals and principles of the basic sciences and their applications relevant to nutrition science.
- A2. Explain the processes involved in the quality management of food service and nutrition.
- A3. Explain the concept of assessing nutritional status and food security for individuals and communities.
- A4. Identify human nutrient requirements, their primary body functions, dietary sources, and the impact of nutrient deficiencies and excess intake.
- A5. Determine energy requirements and regulation, estimate food energy, and plan meals for individuals across various age groups, considering both healthy and illness states.
- A6. Describe the processes of food metabolism and nutrient utilization.

B. Cognitive/ Intellectual Skills:

- B1. Demonstrate simple counseling and education methods to promote behavior change and enhance awareness among individuals and groups.
- B2. Analyze assessment data and information to inform decision-making for continuous quality improvement and effective interventions.
- B3. Discuss nutritional requirements, meal preparation, and meal planning for individuals across various age groups, considering both healthy and illness states.
Formulate plans and strategies to address the nutritional requirements of individuals and communities.
- B5. Discuss the relationship between good nutrition and malnutrition to identify appropriate solutions and evidence-based nutritional therapy methods.

C. Practical and Professional Skills:

- C1. Utilize nutrition care methods for report writing, describing nutrition-related problems, and evaluating and assessing nutrition interventions.

- C2. Apply various methods to assess human nutritional status, including physical, laboratory, and clinical assessments.
- C3. Apply the fundamental principles and practices of food service management and nutrition.
- C4. Calculate the nutritional requirements and prepare meals for individuals across various age groups, considering both healthy and disease states.
- C5. Conduct research in the field of nutrition to enhance the quality of nutrition care.

D. General Skills:

- D1. Proficiently utilize computer programs, the Internet, and their applications to access, present, and write reports related to the field of specialization.
- D2. Keep up with the requirements of the labor market by being familiar with the latest developments in nutrition science.
- D3. Work effectively as part of a team and communicate efficiently with others.
- D4. Conduct applied research and utilize statistical software for experimental design and data analysis in food and nutrition research.
- D5. Develop communication planning skills for individuals, families, and communities, and effectively manage time.

**Undergraduate Program Courses for Departments of the Faculty of
Agriculture, Foods, and Environment - First and Second Levels**

First Level Courses					
First Semester			Second Semester		
Course code	Course Title	Credit Hours	Course code	Course Title	Credit Hours
UR001	Arabic Language (1)	2	FR001	Physics & Meteorology	3
UR006	Islamic Culture	3	FR006	Principles of Statistics	2
FR111	General Chemistry	3	FR111	Organic Chemistry	3
FR112	General Botany	3	FR112	Principles of Agricultural Economics	2
FR113	Mathematics	2	FR113	General Zoology	3
FR114	Agriculture in Yemeni Environment	1	FR114	Principles of Ecology	2
UR007	National culture	2	UR002	Arabic Language (2)	2
FR115	Geology	1	UR008	Conflict with the Israeli enemy	2
Total		17	Total		19

Undergraduate Program Courses for Departments of the Faculty of Agriculture, Foods, and Environment - First and Second Levels

Second Level Courses					
First Semester			Second Semester		
Course code	Course Title	Credit Hours	Course code	Course Title	Credit Hours
FR211	Soil Fundamentals	2	FR221	Principles of Food Science	2
FR112	General Microbiology	3	FR222	Principles of Crops Protection	2
FR113	Biochemistry	3	UR004	English Language (2)	2
FR114	Principles of Animal Production	2	FR127	Principles of Genetics	2
UR003	English Language (1)	2	FR223	Principles of Horticulture	2
FR114	Principles of Crops Production	2	FR224	Plant Physiology	2
FR215	Principles of Agricultural Engineering	2	FR225	Principles of Human Nutrition	2
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Total		16	Total		17

Undergraduate Courses for the Human Nutrition Program (HN) - Department of Food Science and Nutrition

Third Level Courses					
First Semester			Second Semester		
Course Code	Course Title	Credit Hours	Course Code	Course Title	Credit Hours
HN311	Food Metabolism	3	HN321	Nutrition and Immunity	2
HN312	Nutrition through the Life Cycle	2	HN322	Dietary Requirements and Meal Planning	3
FSN312	Food Chemistry and Analysis	3	HN323	Food Security and Nutrition	2
FSN313	Food Processing and Preservation	3	HN324	Food Technology	3
FSN314	Nutritional Status Assessment	3	HN325	Nutritional Education and Counseling	2
HN314	Physiology	2	HN326	Nutrition and physical activity	2
FR315	Agricultural Extension and Rural Community	2	FSN327	Community Nutrition	3
Total		18	Total		17

Fourth Level Courses					
First Semester			Second Semester		
Course Code	Course Title	Credit Hours	Course Code	Course Title	Credit Hours
HN411	Food Service Management	2	HN421	Maternal and Child Nutrition	2
FSN412	Food Microbiology	3	HN422	Food Hygiene and Safety	2
HN412	Research Methodology	2	FSN422	Evaluation of Foods Quality	2
HN413	Biostatistics	3	HN423	Nutrition in Emergency	2
FSN414	Therapeutic Nutrition (1)	3	HN424	Nutrition and Public Health	3
FSN415	Functional Foods	2	FSN425	Therapeutic Nutrition (2)	3
HN415	Field Training (1)	2	HN425	Graduation Project	2
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Total		17	Total		17
Upon successful completion of the academic courses, the student is required to undertake a 6-month nutrition internship in relevant institutions.					