

**In the Name of God
Islamic Republic of Iran
Ministry of Health and Medical Education
Deputy of Education**

**Food Safety and Hygiene
Degree: PhD**

Total Course Credits

- **Core: 20**
- **Non-core (Elective): 4**
- **Dissertation: 18**
- **Compensatory: 10**

Program Description

This doctoral program is intended to train highly qualified scientific experts in health, food safety and agrifood topics. The program also aims to educate PhD students in advanced nutrition and food science through the development of original research and enhancement of capabilities and competences related to high-quality research.

Admission Requirements:

- Passing an Entrance Exam in accordance with the terms and conditions of the Ministry of Health and Medical Education.
- Holding a Bachelor's Degree in Food Safety and Hygiene, Food Microbiology, Food Science and Technology (Quality control), Health Sciences in Nutrition, Nutrition Sciences in Crises and Emergencies, Environmental Health Engineering, General Practitioner, Doctor of Veterinary Medicine, General pharmacist.

Expected Competencies at the End of the Program

The graduates are expected to develop the competency to do the followings:

- To meet the demand for PhDs in different fields of Health and Nutrition sciences.
- To provide theoretical and practical training as well as the necessary capabilities and competences in the field of food safety.
- To combine human and infrastructure resources from different departments for a more efficient, food synergy in this broad scientific field.
- To take advantage of the experience of the existing teaching and research staff in training PhD students as a way to strengthen the European Higher Education and Research Area.
- To facilitate collaboration at doctoral level in order to promote networking and mobility both at the national and international levels.
- To promote research activities aimed at presentation of doctoral theses.
- To consolidate an annual demand of students that allows planning of training activities for a wide audience.
- To satisfy the demand of master's students, like those taking the official master's, in getting engaged in research career on Food Safety developments

General Competencies

Graduates should be competent in the following areas.

- Communication skills
- Competency-based Education
- Research and writing of scientific documentation
- Critical thinking and problem solving skills
- Teamwork skills
- Management skills

Specific Competencies and Skills

- Designing, implementing and evaluating various food and food sampling methods
- Analyzing and interpreting microbial contamination test results
- Analyzing and interpreting food chemical contamination test results
- Commissioning, setting, calibrating and working with related laboratory equipment and supplies

Educational Strategies, Methods and Techniques*

Student Assessment (Methods and Types)

Written tests; Oral and Practical assessments; Portfolio, and log book developments

Ethical Considerations*

*Note: The related document(s) can be found at <http://hcmep.behdasht.gov.ir/>

Tables of the Courses

Table 1. Compensatory Courses

No.	Course Title	Credits			Teaching Hours		
		Theoretical	Practical	Total	Theoretical	Practical	Total
01	Medical information systems	0.5	0.5	1			
02	Statistics and Advanced Research Methodology	1	1	2			
03	Principles of writing scientific articles	1	-	1			
04	Diagnostic Microbiology	1	1	2			
05	Instrumental analysis	1	1	2			
06	Principles of Nutrition	2	0	2			

Table 2. Core Courses

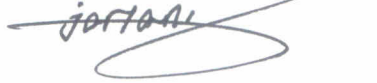
No	Title of the Course	Credits			Teaching Hours		
		Theoretical	Practical	Total	Theoretical	Practical	Total
07	Safety and quality of dairy products	1.5	0.5	2			
08	The health of fruits and vegetables	1.5	0.5	2			
09	Safety and quality of cereals and cereal products	1.5	0.5	2			
10	Hygienic control of meat and meat products	2	1	3			
11	Chemical safety and food toxicology	3	-	3			
12	Chemical safety and food toxicology tests	-	1	1			
13	Food microbiology (Theoretical)	3	-	3			
14	Food microbiology (Practical)	-	1	1			
15	Food chemistry and biochemistry	2	-	2			
16	Field apprenticeship	-	1	-			
17	Thesis	18	18	-			

Table 3. Non-Core Courses*

No	Title of the Course	Credits			Teaching Hours		
		Theoretical	Practical	Total	Theoretical	Practical	Total
18	The principles of technical, hygiene and food safety management	2	-	2			
19	Molecular epidemiology of Food-borne microbial diseases	2	-	2			
20	Formulation, processing and storage of food	2	-	2			
21	The effects of climate change on food safety	1	-	1			
22	Health and safety of food in the hospital	1	-	1			
23	Safety Management and Food Quality Assurance Systems	2	-	2			
24	Disinfectants and sanitizers in food industry	1	-	1			
25	Research and reporting on food poisoning	1	-	1			
26	Halal, functional foods and supplements	2	-	2			
27	Food biotechnology	2	-	2			
28	Analysis of food components	1	1	2			
29	Seminar	1	-	1			

* Students have to pass.....credits based on their dissertation topics, and approval of their thesis adviser and postgraduate education council.

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