

**In the name of God**

**Islamic Republic of Iran  
Ministry of Health and Medical Education  
Deputy Ministry for Education**

**Food Science & Technology (Quality Control)**

**Degree: Master of Science (M.Sc.)**

**Total Course Credits:**

- Core:20
- Non-core (Electives):14
- Thesis (MSc):6

**Program Description**

Food science and technology is a branch of applied science in which the graduates get familiar with the latest scientific and applied achievements in food safety and quality control. They can play an effective role in producing safe food products with better quality and the least wastes.

This field of study benefits from many disciplines such as chemistry, biochemistry, biology, and engineering to better understand food properties and processes conditions .Its ultimate goal is improving food products quality, developing safe and nutritious foods and introducing innovative packaging.

The graduates will be able to conduct researches in various scientific fields including food safety and hygiene, food microbiology and biochemistry, dairy products, cereals, fats and oils, meats and sea foods.

**Admission Requirements**

Having the following degrees:

A bachelor's degree in:

- Food Science and Technology(different branches),Agricultural Engineering(the branch of Food Science and Technology), Chemistry, Chemistry Engineering, ,  
An MD, a Pharm-D, a DVM
- Being accepted in an entrance exam
- Being eligible for entering the program according to the MSc educational rules and regulations.

**Expected Competencies at the End of the Program**

- **General Competencies\***
- **Specific Competencies and Skills**

At the end of the program learners will be competent in the following skills:

- 1- Formulation of healthy foods;
- 2- Producing foods for special patients;
- 3- Developing and utilizing modern technologies and methods in analyzing and controlling food quality;
- 4- Promoting health and safety of food;5- Bettering the foodstuff manufacturing processes and maintenance in order to reduce wastes and increase the product variety.

## **Educational Strategies, Methods and Techniques\***

### **Student Assessment (Methods and Types)**

#### **a) Methods of assessment:**

- Written and oral assessment, DOPS, OSCE, log book-based assessment

#### **b) Types of the assessment**

- Formative (Quizzes ,Mid-term exam)
- -Summative (Final)
- Comprehensive exam
- Monitoring the progress and completion of the thesis.

### **Ethical Considerations\***

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

## Tables of the Courses


**Table 1. Core Courses**

Code of course	Title of the course	Number of credits			teaching hours		
		Theoretical	Practical	Total	Theoretical	Practical	Total
1	Advanced Food Chemistry	2	-	2	34	-	34
2	Advanced Food Microbiology	2	1	3	34	34	68
3	Advanced Food Engineering	2	-	2	34	-	34
4	Food Analysis	1	1	2	17	34	51
5	Advanced Food Processing	3	-	3	51	-	51
6	Design of Experiment	3	-	3	51	-	51
7	Advanced Food Biotechnology	2	-	2	34	-	34
8	Seminar	1	-	1	17	-	17
9	Enzymes in Food Processing	2	-	2	34	-	34
10	Thesis	-	-	6	-	-	-
11	total	18	2	26	306	68	374

**Table 2. Non-Core Courses**

Code of course	Title of the course	Number of credits			Teaching hours		
		Theoretical	Practical	Total	Theoretical	Practical	Total
1	Advanced Cereal Technology	2	-	2	34	-	34
2	Advanced Dairy Technology	2	-	2	34	-	34
3	Advanced Meat Science and Technology	2	-	2	34	-	34
4	Advanced Oil Technology	2	-	2	34	-	34
5	Advanced Canning Technology	2	-	2	34	-	34
6	Food Safety	2	-	2	34	-	34
7	Special Topic in Food Technology	2	-	2	34	-	34
8	total	14		14	238	-	238

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