Chapter 2

Course Specifications

**Curriculum of the Master of Science Program in Food Control

(1) The name and definition of the field and the corresponding level: the non-continuous master's course in the field of food control

The non-continuous master's course in the field of food control is an interdisciplinary course and a branch of the Pharmaceutical basic sciences, whose graduates are active in the field of education, research and services in the society. They have knowledge about human physiology, food chemistry and analysis.

(2) History:

In 1972, the subject of food safety control through critical point analysis was used for the first time in the Pilsbury educational program. This topic was called Hazard Analysis and Critical Control Points for short HACCP.

In 1987, a National Advisory Committee on Microbiological Criteria for Food, known as NACMCF, was established in the United States. Later, another committee was created to control food hygiene, which was called CCFH or Codex Committee for Food Hygiene.

In 1997, seven principles were formulated and announced to related centers for food safety control by HACCP. Later, food safety management systems were introduced to the world under different ISO titles with different numbers.

In Iran, in 1346, the Law on Edibles, Beverage, Cosmetics and Health was enacted, which consists of 18 articles, and Article 13 deals with how to control food and deal with violators in the centers of the preparation, distribution, storage, transportation and sale of edible, drinkable, cosmetics and also public places. this article was revised in 1379.

(3) Values:

Our beliefs and values are mainly derived from the laws and regulations explained in the religion of Islam, and Islam has placed a special emphasis on food and maintaining its health and quality. Therefore, education that is based on these principles can express the elevation of these values in the society and since the control of edible substances. Apart from focusing on health and improving the quality of life, this program uses the latest information on ecological issues related to food and nutrition and training related to professional ethics has been emphasized.

(4) Mission:

The mission of this field is to train knowledgeable, skilled, capable and sensitive human resources for the health of individuals and society in the field of control and analysis of food, whose graduates contribute greatly to the issue of food health in the society and contribute to research in this field.

(5) Vision of the educational program:

It is hoped that with the implementation of the non-continuous master's program in the field of control of food, which goes along with the progress of the basic sciences of pharmaceutical and analytical sciences, it will lead to the improvement of the health of the society and meet the needs for the educational, research and services staff. The costumers of this course graduates are the educational institutions, Universities of medical sciences and research centers, food control laboratories, food

factories and regulatory organizations. This field will meet international standards in the fields of education and services in the next 10 years.

(6) Aims:

At the end of this course, it is expected that the graduates of this field will be able to provide the necessary training.

a) to control the quality of food in authorized laboratories.
b) To educate the employees of related laboratories, employees of food production, distribution and sales centers and, if necessary, as an academic staff of the university, to the students of associate courses.

c) They can work as research associates in research centers related to the field.

7) The role of graduates in the health system (Role Definition):

The roles of graduates of this field are:

a) Service

b) Education

c) Research

d) Management

8) Professional duties of service graduates (Task Analysis):

a) Service: providing relevant laboratory services in food and beverage analysis and control laboratories.

b) Education: Educational training of people related to food - cooperation in developing guidelines related to officials Health

c) Research: Research, cooperation in field-related research projects with research centers and managerial health officials

d) Management: cooperation in food regulatory systems of the Ministry of Health, treatment and Medical Education, Official food control laboratories, and in case of request by officials.

9) General strategies of the educational program:

The planned strategies for the implementation of the non-continuous master's program in the field of food control are a combination of student-oriented and professor-oriented based strategies. It emphasizes on active learning.

10) Conditions and methods of accepting students:

It’s necessary to pass the entrance exam according to the rules and regulations of the Ministry of

Health, Treatment and Medical Education.

The holders of bachelor's degrees in the fields of pure and applied chemistry, biology (all majors) laboratory sciences, nutrition, biochemistry, immunology, food industry (quality control and Health major), microbiology, professional Doctor of Pharmacy degree(Pharm.D) and professional doctor of veterinary medicine (DVM) can enter the course after passing the entrance exam.

-The test materials and their coefficients are as follows:

Examination Subject	coefficient
Chemistry(Analytical and Organic)	2
Toxicology	2
Nutrition	2
Food Microbiology	2
Biochemistry	2
Physiology	2
English language (general)	1

In order to obtain information about the latest changes in acceptable academic degrees and exam materials and entrance exam coefficients for each academic year, refer to the non-continuous master's exam booklet for medical sciences related to that academic year.

11) Similar fields in the Iran:

Similar disciplines have not been established.

12) Similar fields in the other Countries:

There is no such course, but in some countries, including England and America, there is the “Food Safety and Control” course.

13) The conditions required to start the course:

According to the rules of the Council for the Development of Medical Sciences Universities.

Course details

1) The name of the non-continuous master's course in food and beverage control:

Food Control (M.Sc.)

2) The length of the course and its structure:

According to the educational regulations of the non-continuous master's course approved by the Supreme Planning Council of education of Medical Sciences .

3) The total number of study units:

The total number of study units in this course are 31 units, which are as follows:

Dedicated units: 25 units

Thesis: 6 units

total sum: 31 units

In addition to passing the course units, the student is required to pass all or some of the deficiency or compensatory courses (table) (A) with the approval of the educational department and the approval of the university's graduate education council.

Table (A) Deficiency or compensatory courses of the non-continuous master's course in food and beverage control.

1	Code	Course Name	Number of Credi	Lecture	Total	Practical	Theoretical
2	101	Physiology	2	2	4	0	4
3	102	Biochemistry	2	2	4	0	4
4	103	Toxicology	2	2	4	0	4
5	104	Microbiology	2	2	4	0	4
6	105	Vital Statistics	2	2	4	0	4
7	106	Fundamentals o	2	2	4	0	4
8	107	Transgenic Prod	2	2	4	0	4
9	108	Medical Informat	2	2	4	0	4

Table (b) specific courses of the non-consecutive master's course in the field of material control

Food and drink

1	Course Name	Credits	Type
2	Nutrition, Diet Th	12	Theoretical
3	Food Safety Mar	14	Theoretical
4	Instrumental Ana	1	Practical
5	Supervisory Reg	15	Theoretical
6	Principles of Pac	17	Theoretical
7	Food Chemistry	1	Practical
8	Enzyme Chemis	17	Theoretical
9	Non-Nutritive Ac	17	Theoretical
10	Water Science	19	Theoretical
11	Microbiological C	19	Theoretical
12	Analysis and Co	21	Theoretical
13	Toxicology of Fo	21	Theoretical
14	Food and Bevera	22	Practical
15	Thesis	22	Theoretical
16	Seminar	1	Theoretical
17	31	14	17

1	Prerequisite/con	Number of lesso	Number of lesso	Number of lesso	Number of lesso
2		Theory	Internship	Practical	Total
3		34			34
4		34			34
5		17		34	51
6		34			34
7		34			34
8	2	34			34
9	2	17			17
10		17			17
11		34			34
12	4	34			34
13	5.11.14	34			34
14	3	34			34
15	10.18.19		102		102
16					
17		17			17