

School of Nutrition and Food Industry.
Learn the lesson plan.

Course Title: Safety of Meat Quality **Audience:** Students of the First Semester Master of Health and Safety
Credits: (or Master's share of units) 2 units (1 theoretical unit 1 practical unit) hours
Schedule: Tuesday 10-12
Presentation time: (day, hour and semester) Tuesday 10 to 8th semester of the first 1402-1401
Instructor: Dr. Azizi
Prerequisite course: No.

The general purpose of the lesson:

Learn and acquire the necessary knowledge of the safety and health issues of meat and meat products

(a) The purpose of each meeting (theoretical)

1. Nutritional value of meat and types of meat products
2. Species of human meat consumption.
3. Familiarity with composition and meat building.
4. Factors affecting the quality of meat and meat products
5. Familiarity with the types of meat products, production methods, quality indicators and health indicators – class offerings by students
6. Familiarity with the types of scams in the meat and meat products industries and their diagnostic methods – class offerings by students
7. Familiarity with biological agents (bacteria, parasite, virus) critical of a variety of meat and meat products – class offerings by students
8. Chemical residues, heavy metals, and medicines in meat – class offerings by students

Practical

9. Meat sampling and meat products.
10. Test different types of meat and meat products.
11. Meat Composition Testing (water, protein, fat and humidity)
12. The remaining measurement of chemical toxins in meat
13. Antibiotic remaining measurement tests in meat
14. The remaining test of nitrite in meat products.
15. Practical visits to meat factories
16. Practical visits to meat factories
17. Final exam

First session

Familiarity of students with nutritional value of meat and types of meat products

General goals

Importance of meat and its products from a nutritional perspective

Specific goals

The importance of the course for students.

Existing references.

Taught and exams are taken.

An introduction to the importance of meat and its products from a nutritional perspective.

At the end of the student must:

- 1) He knows the topics.
- 2) He knows the sources of lessons.
- 3) Meet the lessons offered in each session.
- 4) Become familiar with teaching.

2th session

Species of human meat consumption.

General goals

Familiarity with red, white meat and marine animals

Specific goals

Examine the characteristics and conditions of the maintenance and consumption of various types of meat consumed by humans

At the end of the student must:

Have complete information on the types of meat consumed for humans and their maintenance conditions.

3th session

Familiarity with composition and meat building.

General goals

Exploring buildings, compounds, changes and technological properties of meat

Specific goals

Complete familiarity with buildings, compounds, changes and technological properties of meat

At the end of the student must:

Have complete information on building, compounds, changes and technological properties of meat.

4th session

Factors affecting the quality of meat and meat products

General goals

Evaluation of effective factors in meat processing and chemical changes affecting meat quality

Specific goals

Familiarity with effective factors in meat processing and chemical changes affecting meat quality

At the end of the student must:

Know the effective factors in meat processing and chemical changes affecting the quality of meat

5th session

Familiarity with types of meat products, production methods, quality indicators and health.

Classroom presentation by students.

General goals

Types of meat products and quality of meat used

Specific goals

Familiar with types of meat products.

Identify effective factors in improving and quality of meat used.

At the end of the student must:

Know the types of meat products and know the factors that affect the improvement and quality of the meat used.

6th session

Familiarity with the types of scams in the meat and meat products industries and their diagnostic methods

Classroom presentation by students.

General goals

Familiarity with the tests used to monitor meat quality

Familiarity with the types of meat industry

Specific goals

Examination of Meat Quality Test.

Inspections on meat production plants.

At the end of the student must:

It can identify the tests used to monitor the quality of meat and understand the scams of this industry.

7th session

Familiarity with biological agents (bacteria, parasite, virus) critical of meat types and meat products

Classroom presentation by students.

General goals

Check for types of bacterial, fungal, viral and parasitic contaminants in meat and fish

Specific goals

Familiarity with diagnostic methods of types of bacterial, fungal, viral and parasitic contamination in meat and fish

At the end of the student must:

Can identify types of bacterial, fungal, viral, and parasitic contaminants in all types of meats and marine products (fish).

8th session

Chemical residues, heavy metals and medicines in meat

Classroom presentation by students.

General goals

Checking chemical residues, heavy metals and medicines in meat

Specific goals

Familiarity with the remaining types of chemicals in meat

Know the types of heavy metal residues and medications in meat

At the end of the student must:

It should be able to provide complete information on chemical residues, heavy metals and medications in meat.

9th session (Practical)

Meat sampling and meat products.

General goals

Knowledge of Meat Sampling and Meat Products

Specific goals

Check the methods of sampling meat and meat products.

At the end of the student must:

Know the types of meat sampling and meat products.

10th session (Practical)

Test different types of meat and meat products.

General goals

Knowledge of different types of meat and meat products.

Specific goals

Examination of imitation tests in red meat

Examination of imitation tests in other meat products

Examination of Fraud Detection in Fish Meat

At the end of the student must:

He knows enough about the tests to identify the types of meat and meat products.

11th session (Practical)

Meat Composition Testing (water, protein, fat)

General goals

Knowledge of Meat Composition Testing (water, protein)

Knowledge of Meat Composition Test (fat, humidity)

Specific goals

Complete review of meat (water, protein) tests

Complete review of meat composition tests (fat, humidity)

At the end of the student must:

Have sufficient mastery of meat-ingredients tests (water, protein, fat, and moisture).

11th session (Practical)

The remaining measurement of chemical toxins in meat

General goals

Knowledge of the remaining chemical toxins measurement tests in meat

Specific goals

Evaluation of factors affecting the remaining measurement of chemicals in meat

At the end of the student must:

Have sufficient information about the remaining chemical toxins measurement tests in meat.

13th session (Practical)

Antibiotic remaining measurement tests in meat

General goals

Learn about the remaining antibiotic measures in meat.

Specific goals

Evaluation of factors affecting the remaining antibiotic measurement tests in meat

At the end of the student must:

Know the remaining antibiotic measures in meat.

14th session (Practical)

The remaining test of nitrite in meat products.

General goals

Knowledge of the remaining test of nitrites in meat products

Specific goals

Evaluation of factors affecting the remaining nitrite test in meat products

At the end of the student must:

Know the remaining test of nitrite in meat and meat products.

15th session (Practical)

Practical visits to meat factories

General goals

Check the different parts of the factory.

Specific goals

Familiar with the production line of meat products.

Familiarity with the types of equipment in the production line

Check the critical points in the production line.

At the end of the student must:

The meat and meat products are fully understood and can describe it.

16th session (Practical)

Continue to visit the meat industry.

General goals

Check out different parts of the factory.

Specific goals

Continued familiarity with the production line of meat products

Continued familiarity with the types of equipment in the production line

Check the critical points in the production line.

At the end of the student must:

The meat and meat products are fully understood and can describe it.

17th session

The final test.

General goals

The final test.

Specific goals

Full mastery of basic principles in meat, its characteristics and principles related to the preparation of meat products and the investigation of corruption and immunological tests in meat products

At the end of the student must:

Have a full professional mastery of scientific correspondence and review them.

References

1. Use of scientific and specialized articles related to disciplines from 2020 onwards
2. Rokni, nordahar, Meat Science and Safety
3. Adams, M.R., and Moos.M.O.Food Microbiology.New Age International Publishers. New Delhi, India. ,latest edition.
4. Gracey, J.F.Meat Hygiene. 10 ED.Bailliere Tindall.Saunders Lth London. ,latest cdition
5. Hui, Y . H.: Nip, W.K.: Rogers, Robert W.Meat Science and Applications. Marcel Dekker Inc. USA. , latest edition.

Teaching method

In Virtuality: The use of the Promising System and the presentation of lessons is voiced by PowerPoint and educational videos related to each episode.

Students are invited to share some of the content in a single, group-based setting.

Plans various questions from students on different topics of study and their entry into scientific discussion through questions and answers online.

5 minutes before the start of the discussion.

In-person: Speech, PowerPoint Use, Film and Educational Photos, Questions and Answers and Group Discussion in Class

Educational equipment

Whiteboard, PowerPoint and Video Proctor Software, and in case of a class, Virtual Storyline Software and Promotional System

Measurement and evaluation.

Clock	Date	Share of total score (by percentage)	Method	Exam type
8-10	All sessions	%5	Questions and oral answers.	Quiz
8-10	1401/8/24	%20	Test	Intermediate test.
8-10	All sessions	Encouragement	Presentation of Classical Activities	Active presence in class.
10:30	1401/10/28	%75	Test	The final test.

Class rules:

In case of presence: attending class on time, observing and not having a proper absence and respect for the class at the school hour.

In case of virtualization: Tick-in-person in the promise system and answer questions and assignments raised.

Expectations of the student:

In the end, students are expected to be familiar with the most important meat and meat products issues, examining meat corruption, and detecting the stages of corruption by immunological experiments in meat. Factors affecting meat slaughter fully understand the factors influencing parasitic, fungal and microbial contamination of meat. The technology knows the types of meat products and knows the factors that improve their quality.

Timeline of Meat Safety and Products
Day and Hour of Meeting: Tuesday 10-8

Teacher	The topic of each session	Date	Session
Dr. Azizi	Nutritional value of meat and types of meat products	1401/6/26	1
Dr. Azizi	Species of human meat consumption. (Official holiday and wonderful class at the right time.	1401/7/5	2
Dr. Azizi	Familiarity with composition and meat building.	1401/7/12	3
Dr. Azizi	Factors affecting the quality of meat and meat products	1401/1/19	4
Dr. Azizi	Familiarity with types of meat products, production methods, quality indicators and health. Classroom presentation by students.	1401/7/26	5
Dr. Azizi	Familiarity with the types of scams in the meat and meat products industries and their diagnostic methods Classroom presentation by students.	1401/8/3	6
Dr. Azizi	Familiarity with biological agents (bacteria, parasite, virus) critical of meat types and meat products Classroom presentation by students.	1401/8/10	7
Dr. Azizi	chemical residues, heavy metals and medicines in meat Classroom presentation by students.	1401/8/17	8
Dr. Azizi	Meat sampling and meat products (practical part)	1401/8/24	9
Dr. Azizi	Perform various fraud detection tests in meat types and meat products (practical part)	1401/9/1	10
Dr. Azizi	Meat Composition Testing (water, protein, fat)	1401/9/8	11
Dr. Azizi	The remaining measurement of chemical toxins in meat (practical section)	1401/9/15	12
Dr. Azizi	Antibiotic residual measurement tests in meat (practical section)	1401/9/22	13
Dr. Azizi	The remaining test of nitrite in meat products (practical part)	1401/9/29	14
Dr. Azizi	Practical Visit of Meat Industry Factories (Practical Section) (Official holiday and wonderful class at the right time.	1401/10/6	15
Dr. Azizi	Practical Visit of Meat Industry Factories (Practical Section)	1401/10/13	16
Dr. Azizi	The final test.	1401/10/13	17

Name and signature of instructor: Dr. Maryam Azizi

Name and signature of faculty EDO officer:

Name and signature of department director:

Delivery date: