

Course Description Form

1. Course Name:

Meat and fish technology

2. Course Code:

MEFT469

3. Semester / Year:

First semester (autumn)/2023-2024

4. Description Preparation Date:

1/2/2024

5. Available Attendance Forms:

Attendance lesson

6. Number of Credit Hours (Total) / Number of Units (Total): units

30 hours/30 units+ 45 hours/

7. Course administrator's name (mention all, if more than one name):

Name: Assistant professor dr. Oday hasan ali al-jammaas

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8. Course Objectives**Theoretical:**

- Enabling the student to understand and comprehend what is related to the types of red and white meat and the changes that occur in them after various manufacturing transactions.
- Enabling the student to know the most important methods of preserving meat and means of protecting it
- Enabling the student to become familiar with the most important sources of spoilage and spoilage of meat
- Empowering the student with the ability to detect various changes in the characteristics of meat and its products
- The student can judge the quality of meat through its various characteristics

practical:

- Enabling the student to become familiar with the most important laboratory methods in studying the quality characteristics of meat and its products

9. Teaching and Learning Strategies

Theoretical:
Interactive lecture with the use of presentations – dialogue Discussion - brainstorming - assigning tasks and reporting.

practical:
Assigning group work and revealing students’ skills - assignment
Assignments to write a report for each experiment.

10. Course Structure

Week	Hours	Required Learning Outcomes	Name of Unit or subject	Learning method	Evaluation method
First	2Theoretical 3Practical	Theoretical: B1: It explains the concept of the science of meat and fish processing and its relationship with the chemical and physical composition of different types of animal meat Practical: B7: Explains the differences between types of meat.	Theoretical: Chemical composition and physical composition of the carcass practical: Introduction to meat	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Second	2Theoretical 3Practical	Theoretical: C1: Explains the most important differences in chemical composition between types of meat proteins practical: C5: Tests appropriate methods for obtaining meat samples to be tested	Theoretical: Study of the most important meat proteins and muscle components practical: Methods of taking meat samples	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Third	2Theoretical 3Practical	Theoretical: B2: He is familiar with the factors affecting the occurrence of the hardening phenomenon in different types of meat practical:	Theoretical: Nutritional value of meat Changes that occur after the death of an animal	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions

		<p>B8: Write a brief overview of the different components of meat.</p>	<p>practical: Analysis of meat components</p>		
Fourth	<p>2Theoretical 3Practical</p>	<p>Theoretical: A1: Recognizes the mechanisms of muscle contraction and relaxation</p> <p>practical: A5: . Write a brief overview of the different components of meat.</p>	<p>Theoretical: Contraction and relaxation of the muscles</p> <p>practical: Analysis of meat components</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting</p>	<p>Short exams, assignments, or discussions</p>
Fifth	<p>2Theoretical 3Practical</p>	<p>Theoretical: C2: Explains the changes that occur in the various components of meat</p> <p>practical: C6: It tests how to estimate some qualitative characteristics of meat and meat products.</p>	<p>Theoretical: Chemical changes at slaughter</p> <p>practical: Qualitative tests for raw meat and its products</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting</p>	<p>Short exams, assignments, or discussions</p>
Sixth	<p>2Theoretical 3Practical</p>	<p>Theoretical: C3: It suggests a suitable method to make meat and meat products more palatable to consumers</p> <p>practical: C7: Shows the methods used to estimate the quality and freshness of fish meat.</p>	<p>Theoretical: Chemical changes at slaughter</p> <p>practical: Estimating the quality and freshness of fish</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting</p>	<p>Short exams, assignments, or discussions</p>
Seventh	<p>2Theoretical 3Practical</p>	<p>Theoretical: C4: He is familiar with the most important changes that occur in meat and its products after storing them by cooling and freezing</p>	<p>Theoretical: Meat palatability factors</p> <p>practical: Preparation of brine</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting</p>	<p>Short exams, assignments, or discussions</p>

		<p>practical: C8: Explains the role of prepared brine solution in preserving meat and products.</p>	<p>solutions</p>		
eighth	2Theoretical 3Practical	<p>Theoretical: A2: Learn about the most important changes that occur in meat after salting and curing it</p> <p>practical: A6: He writes a brief overview of dry and wet salting methods for different types of meat.</p>	<p>Theoretical: Meat preservation methods (cooling and freezing)</p> <p>practical: Preserving meat and fish (salting)</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style</p> <p>practical : Assigning tasks and reporting</p>	Short exams, assignments, or discussions
Ninth	2Theoretical 3Practical	<p>Theoretical: B3: Judges the efficiency of smoking and canning methods in obtaining high quality meat products</p> <p>practical: B9: Explains the goals achieved through the process of smoking meat and fish.</p>	<p>Theoretical: Methods of preserving meat (salting and curing)</p> <p>practical: Preserving meat and fish (smoking)</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style</p> <p>practical : Assigning tasks and reporting</p>	Short exams, assignments, or discussions
Tenth	2Theoretical 3Practical	<p>Theoretical: A3: Learn about the most important chemical preservatives that are added to meat and meat products</p> <p>practical: A7: He tries the steps. He tries the steps for canning meat and fish. Canning meat and fish.</p>	<p>Theoretical: Meat preservation methods (smoking and canning)</p> <p>practical: Preserving meat and fish (by canning)</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style</p> <p>practical : Assigning tasks and reporting</p>	Short exams, assignments, or discussions
Eleventh	2Theoretical 3Practical	<p>Theoretical: B4: He masters the wet cooking method for different types of meat and its effect on</p>	<p>Theoretical: Meat preservation methods (drying and preservatives)</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style</p>	Short exams, assignments, or discussions

		<p>various characteristics of meat</p> <p>practical: B10: Explains the steps of drying meat and their effects on the characteristics of dried meat.</p>	<p>practical: Preserving meat and fish (by drying)</p>	<p>practical : Assigning tasks and reporting</p>	
Twelfth	2Theoretical 3Practical	<p>Theoretical: E1: Determines the dry cooking method most popular with consumers</p> <p>practical: E2: Try the steps for freezing meat and fish.</p>	<p>Theoretical: Meat cooking methods (wet cooking)</p> <p>practical: Preserving meat and fish (by freezing)</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style</p> <p>practical : Assigning tasks and reporting</p>	Short exams, assignments, or discussions
Thirteenth	2Theoretical 3Practical	<p>Theoretical: A4: Learn about the types of minced meat products and their microbial content</p> <p>practical: A8: It can represent the steps of manufacturing sausage with a flow chart.</p>	<p>Theoretical: Meat cooking methods (dry cooking)</p> <p>practical: Sausage and hamburger industry</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style</p> <p>practical : Assigning tasks and reporting</p>	Short exams, assignments, or discussions
Fourteenth	2Theoretical 3Practical	<p>Theoretical: B5: He is familiar with the sources of meat spoilage and spoilage and how to avoid them</p> <p>Practical: B11: Explains how to measure the functional properties of meat.</p>	<p>Theoretical: Minced meat products</p> <p>Practical: Measuring functional characteristics</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style</p> <p>practical : Assigning tasks and reporting</p>	Short exams, assignments, or discussions
Fifteenth	2Theoretical 3Practical	<p>Theoretical: B6: He becomes familiar with the types of devices, equipment, and tools used in a food manufacturing factory after his visit</p> <p>practical: B12: He writes a brief overview of the role of muscles retaining moisture and</p>	<p>Theoretical: Causes of microbial spoilage of meat and utilization of animal waste</p> <p>practical: The effect of muscle ability to carry water methods of cooking meat and fish</p>	<p>Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style</p> <p>practical : Assigning tasks and reporting</p>	Short exams, assignments, or discussions

cooking.

11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports etc . The average is calculated from 25 for theory, as well as for practical, with an average of 15.

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Different lectures
Main references (sources)	-----
Recommended books and references (scientific journals, reports...)	-----
Electronic References, Websites	-----

Instructor of theoretical part

dr. Oday hasan ali al-jammaas

Instructor of practical part

Mead waleed saadullah

Chairman of the scientific committee

Prof. Dr. Moafak mahmood ahmed

Head of the department of Food science

Prof. Dr. Sumaya khalaf badawi