Course Description Form

1. Course Name:

Cheese Processing

2. Course Code:

CHPR466

3. Semester / Year:

First semester (fall) / 2024-2025

4. Description Preparation Date:

1/9/2024

5. Available Attendance Forms:

Present and integrated

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

30 hours/30 units+ 45 hours/

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

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8. Course Objectives

Enabling the student to understand what is related to cheese making and its types *** Enabling the student to know the most important types of cheese that are widespread in the world and in Iraq in particular** *** Enabling the student to become familiar with the most important defects of cheese** *** The student can judge the types of cheese**	**practical:** Enabling the student to become familiar with the most important laboratory methods in studying and making cheese

9. Teaching and Learning Strategies

Theoretical:	practical:
Interactive lecture w the use of presentations – dialogue Discussion brainstorming assigning tasks and reporting.	Assigning group work and revealing students' skills – assignment Assignments to write a report for each experiment

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2Theoretical 3 practical	Theoretical a1: Identify cheese, its types, and the differences between cheeses. Practical c1: Different samples of rennet are tested to determine quality and the best indication for cheese making. They also examine the sensitivity to milk in soft white cheeses.	Theoretical: Defining cheese and the factors that determine the prevalence of one type of cheese over another. Practical: Estimating the strength of rennet.	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
2	2Theoretical 3 practical	Theoretical a1: Identify cheese, its types, and the differences between cheeses. Practical c1: Different samples of rennet	Theoretical: Geographical Distribution Cheese Types Practical: Starter Preparation and Activation	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical:	Short exams, assignments, and discussions

		importance of each component of milk, its effect on the resulting cheese, and the impact of manufacturing steps on the resulting cheese. Practical C1: Examine different samples of rennet to determine their strength and determine which ones are best for cheese making. They also conduct sensory tests on milk and soft white cheese.	in Cheesemaking Practical: Making Monterey Jack Cheese	On the board Dialogue style Direct Practical: Assigning tasks and reporting	discussions
6	2Theoretical 3 practical	Theoretical a2: The student learns the importance of each component of milk, its effect on the resulting cheese, and the effect of manufacturing steps on the resulting cheese. Practical c2: The student experiments with the method of making cheese and various types of cheese, such as soft cheese.	Theoretical Microbial Relationship to Cheesemaking Practical Cheese cheddar	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
7	2Theoretical 3 practical	Theoretical a2: The student learns the importance of each component of milk, its effect on the resulting cheese,	Theoretical Methods of Coagulating Milk Practical:	theoretical: Methods Audio Writing style On the board	Short exams, assignments, and discussions

		and the effect of manufacturing steps on the resulting cheese. Practical c2: The student experiments with the method of making cheese and various types of cheese, such as soft cheese.	Damietta Cheese	Dialogue style Direct Practical: Assigning tasks and reporting	
8	2Theoretical 3 practical	Theoretical a2: The student learns the importance of each component of milk, its effect on the resulting cheese, and the impact of manufacturing steps on the resulting cheese. Practical C1: Examine different samples of rennet to determine their strength and determine which ones are best for cheese making. They also conduct sensory tests on milk and soft white cheese.	Theoretical: Internal materials and raw materials in cheesemaking Practical Oshari cheese	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
9	2Theoretical 3 practical	Theoretical a2: The student learns the importance of each component of milk, its effect on the resulting cheese, and the impact of manufacturing steps on the resulting cheese.	Theoretical: General steps in cheesemaking Practical: Types of stabilizers in processed cheese	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning	Short exams, assignments, and discussions

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		Practical C1: Examine different samples of rennet to determine their strength and determine which ones are best for cheese making. They also conduct sensory tests on milk and soft white cheese.		tasks and reporting	
10	2Theoretical 3 practical	Theoretical a2: The student learns the importance of each component of milk, its effect on the resulting cheese, and the impact of manufacturing steps on the resulting cheese. Practical C1: Examine different samples of rennet to determine their strength and determine which ones are best for cheese making. They also conduct sensory tests on milk and soft white cheese.	Theoretical General Steps in Cheesemaking Practical Cheese Aging Over Different Periods	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
11	2Theoretical 3 practical	Theoretical: a2: The student learns the importance of each component of milk, its effect on the resulting cheese, and the effect of manufacturing steps on the resulting cheese.	Theoretical General Steps in Cheesemaking Practical: Types of Dry Cheeses	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and	Short exams, assignments, and discussions

		Practical: c2: The student experiments with the method of making cheese and various types of cheese, such as soft cheese.		reporting	
12	2Theoretical 3 practical	Theoretical: a2: The student learns the importance of each component of milk, its effect on the resulting cheese, and the effect of manufacturing steps on the resulting cheese. Practical: c2: The student experiments with the method of making cheese and various types of cheese, such as soft cheese.	Theoretical: General Steps in Cheesemaking Practical: Types of Cheese Aging Methods	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
13	2Theoretical 3 practical	Theoretical a1: Learn about cheese, its types, manufacturing methods, and the differences between cheeses. Practical c2: Experiment with the method of making hard cheese and different types of cheese, such as soft cheese.	Theoretical: General Steps in Cheesemaking Practical What Type of Enzymatic Cheesemaking?	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
14	2Theoretical 3 practical	Theoretical 1: Communicate with a dairy factory to	Theoretical: Problem Solving	theoretical: Methods	Short exams,

		conduct a scientific and field visit to learn about different production methods. Practical c2: Experiment with the method of making hard cheese and different types of cheese, such as soft cheese.	Practical Which type of packaging is best for packaging dry cheese?	Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	assignments, and discussions
15	2Theoretical 3 practical	Theoretical a1: Learn about cheese, its types, manufacturing methods, and the differences between cheeses. Practical c2: Experiment with the method of making hard cheese and different types of cheese, such as soft cheese.	Theoretical: Cheese Drying Practical: Which Type of Cheese Tastes Best?	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions

11. Course Evaluation

t	Calendar methods	Calendar date (week)	Class	Relative weight %
1	Report 1	fourth week	2.5	2.5
2	Report 2	The fifth week	2.5	2.5
3	Short test (1) Quiz	the sixth week	2	2
4	Short test (2) Quiz	The fourteenth week	2	2
5	Short test (3) Quiz	The fifteenth week	1	1
6	Semester test (1)	the sixth week	7.5	7.5

7	Semester test (2)	The eleventh week is difficult	7.5	7.5
8	Final theoretical test	Final semester exams	40	40
9	Laboratory application	The fifteenth week	5	5
10	Laboratory evaluation	The third and fifth week	2	2
11	Practical short test (1) Quiz	The first week	1	1
12	Short practical test (2) Quiz	fourth week	0.5	0.5
13	Short practical test (3) Quiz	The fourteenth week	1	1
14	Practical test	Weeks 6, 8, 9, 10, 11, 12 and 13	5.5	5.5
15	Final practical test	Final semester exams	20	20
	the total	100	100%	100%

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

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	Cheese and Fermented Dairy Production (Abdul Muttalib, Salim)
Main references (sources)	Numerous books and magazines related to food manufacturing
Recommended books and references (scientific journals, reports...)	Numerous books and magazines, including Technology of Cheese Making, Journal of Dairy Science
Electronic References, Websites	Google Search

Lecturer of theoritical part dr. Azhar Ibrahim shukr

Lecturer of practical part dr. Saif Ali Mohammed

Chairman of the Scientific Committee: A.Prof.Dr. Taha Mohammed Taqi

Head of the Food Science Department: A.Prof. Dr. Taha Mohammed Taqi