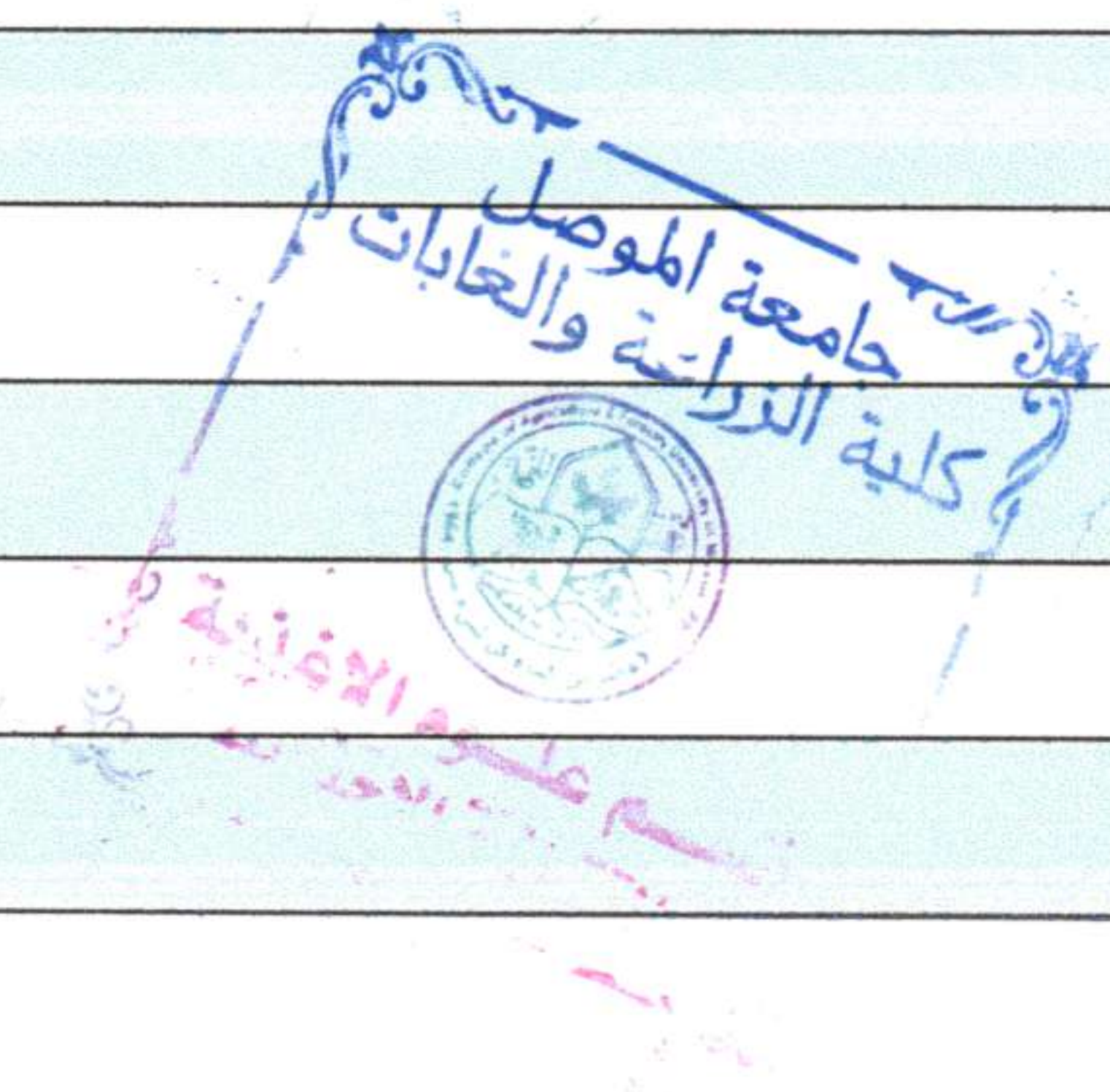


### Course Description Form

1. Course Name:	
liquid dairy products	
2. Course Code:	
LIDP374	
3. Semester / Year:	
First autumn semester 2023-2024	
4. Description Preparation Date:	
2024\2\1	
5. Available Attendance Forms:	
In presence	
6. Number of Credit Hours (Total) / Number of Units (Total)	
2 theoretical + 3 practical / 3.5 units	
7. Course administrator's name (mention all, if more than one name)	
Name: M.D. Zaman Nadhim Taher	
Name: M.M. waead allah hashim	
8. Course Objectives	
<p><b>Course Objectives</b></p> <p>theoretical:</p> <ul style="list-style-type: none"> <li>- Enabling the student to understand and comprehend what is related to the manufacture of dairy products</li> <li>- Enabling the student to know the most important methods of preserving milk</li> <li>- The student's ability to identify milk adulteration</li> <li>-- Enable the student to purify and filter milk</li> <li>- The student can distinguish between types of product manufacturing technology</li> </ul>	<p>practical:</p> <p>Enabling the student to become familiar with the most important manufacturing methods and to become familiar with the most important modern methods for producing various dairy products</p>
9. Teaching and Learning Strategies	
<p><b>Strategy</b></p> <p>theoretical:</p> <ul style="list-style-type: none"> <li>-Interactive lecture</li> <li>- Brainstorming</li> </ul>	<p>practical:</p> <ul style="list-style-type: none"> <li>- Assigning group work to reveal leadership skills</li> <li>- Assigning tasks and reporting for each experiment</li> <li>- Dialogue and discussion</li> </ul>



<ul style="list-style-type: none"> <li>- Dialogue and discussion</li> <li>- Assigning tasks and reporting</li> <li>- Offers for models made from dairy products</li> <li>- He is assigned to prepare a diligence report and discuss it with the students</li> </ul>	<ul style="list-style-type: none"> <li>-Brainstorming</li> <li>- Interactive practical lecture</li> </ul>
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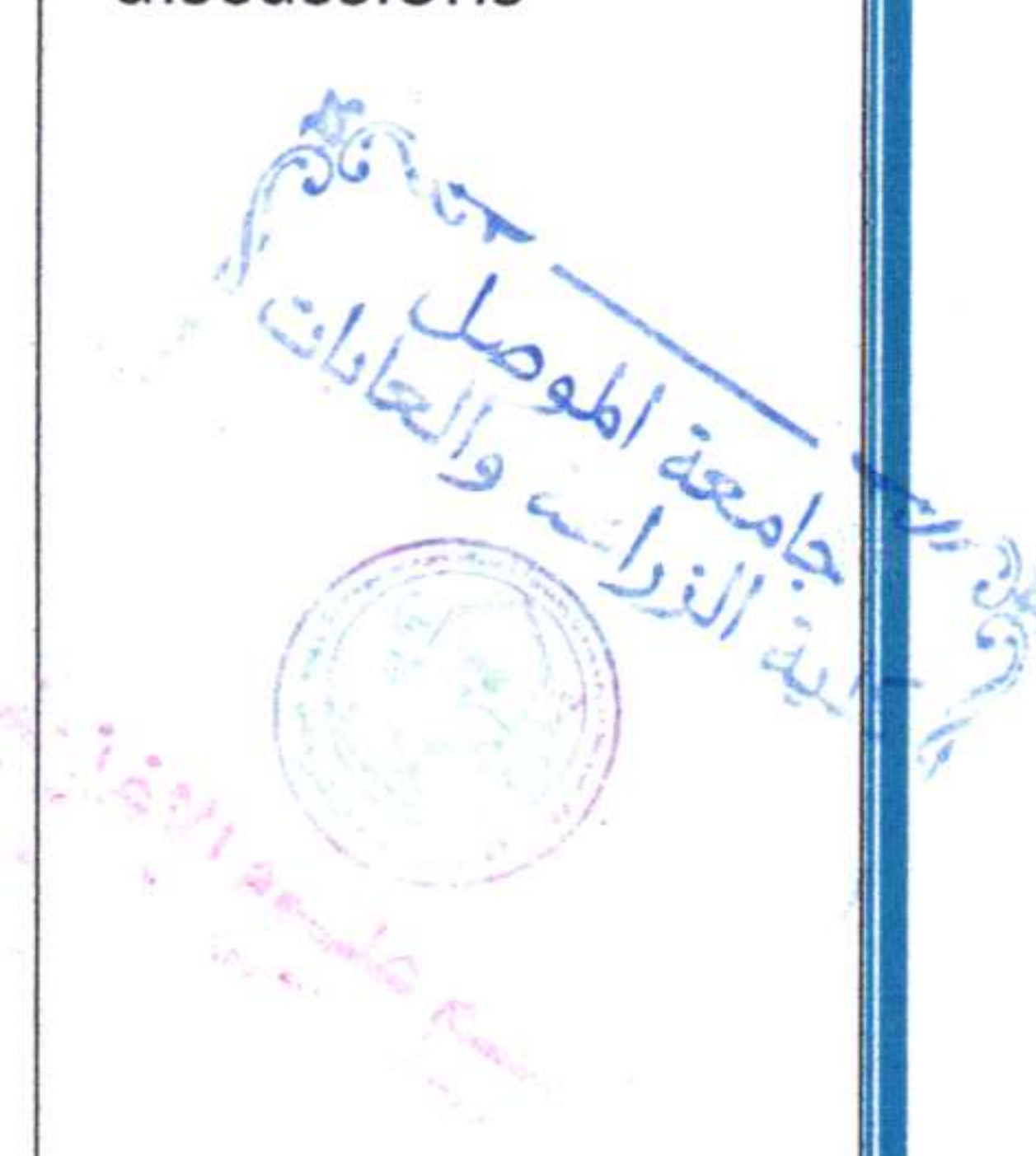
10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2Theoretical 3 practical	theoretical: B1 : The student Rules on Shows the relationship Positive and negative in between milk and Dairy product formulation practical : B1: The student takes different samples of milk	theoretical: Milk Definitions -Factors Affecting milk composition Practical: taking and examining samples	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: C1 : The student gets to known Study and identify all Properties of Milk Practical: A1: The student learns how to take models and analyze them chemically	theoretical: Properties of milk Chemical and physical Practical: Chemical analysis of milk	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
3	2Theoretical 3 practical	theoretical: B2 : The student is judged Detection of pollutants With milk	theoretical: Types of bacteria in Milk and sources	theoretical: Methods Audio	Short exams, assignments, and

		and products Practical: B2: The student tests certain types of milk for microbial content	pollution With it Practical: measuring the microbial content of milk	Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	discussions
4	2Theoretical 3 practical	theoretical: A2 : The student is judged Work on defining Receiving Paths And distribution of milk practical : A2: The student uses strainers to purify the milk	theoretical: Prepare milk in Farm and milk receiving Practical: purify and filter impurities	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
5	2Theoretical 3 practical	theoretical: C2 : The student experiences a process Collect milk from Animal breeders practical : B3: The student performs the process of sorting milk using a separator	theoretical: Milk collection centers Practical: milk sorting	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
6	2Theoretical 3 practical	theoretical: A2 : The student seeks To Use equations Mathematical and arithmetic To adjust milk fat Practical: B4: The student	theory: Adjusting the percentage of fat in milk (Pearson square) Practical: pasteurization and sterilization of milk	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning	Short exams, assignments, and discussions



		condensed milk Sweetened Using modern methods practical : A4: The student tests types of whipped cream	Milk  Practical: whipped cream	On the board  Dialogue style Direct  Practical: Assigning tasks and reporting	discussions
11	2Theoretical 3 practical	theory: A6: The student tries Manufacture of grafted milk By modern methods practical : B6: The student makes types of cheese	theory: Flavored milk products  practical: cheese making	theoretical: Methods Audio Writing style On the board  Dialogue style Direct  Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
12	2Theoretical 3 practical	theory: A7: The student tries Manufacture of dried dairy By modern methods practical : A6: The student learns about methods of manufacturing fermenters	theory: Dried Dairy Products  practical: manufacturing lactic ferments	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	theory: A1: Student runs circlesDiscussion regarding safety Milk and ways to protect it Practical: A6: The student learns about the factors related to	theory: Report and discuss  Practical: making butter	theoretical: Methods Audio Writing style On the board  Dialogue style Direct  Practical: Assigning tasks and	Short exams, assignments, and discussions



		butter production		reporting	
14	2Theoretical 3 practical	Theory: A8: Student identification of health risks Its impact on human health and the impact of negligence on Public Health practical : A6: The student makes the game	My theory: A field visit to some Dairy factories and submit a report Common microorganisms In milk contamination practical: making gems	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
15	2Theoretical 3 practical	Theory: A8: Student identification of health risks Its impact on human health and the impact of negligence on Public Health practical : A3: The student determines the validity of the milk samples	theory: A field visit to some Dairy factories and submit a report Common microorganism In milk contamination Practical: Solve a problem	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)	General dairy principles,
Main references (sources)	Scientific journals and articles
Recommended books and references (scientific journals, reports...)	Specialized books in the field of dairy science and its products Books on liquid dairy products
Electronic References, Websites	Scientific electronic websites specialized in studying milk and its processing

Theoretical subject teacher : Dr. Zaman nadhim taheer

Practical subject teacher: M.M. waeed allah hashim

Chairman of the Scientific Committee: Prof. Dr. Mowafaq Mahmoud Ahmed

Head of the Food Science Department: Prof. Dr. Sumaya Khalaf Badawi



الأستاذ الدكتور  
سريته خلف بدوي  
رئيس قسم علوم الأغذية



جامعة الموصل  
كلية الزراعة والحدائق  
الموصل - العراق  
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