

Course Description Form

1. Course Name:					
Principles of Dairy					
2. Course Code:					
PRPD227					
3. Semester / Year:					
First semester (fall) / 2023-2024					
4. Description Preparation Date:					
1\2\2024					
5. Available Attendance Forms:					
Presence					
6. Number of Credit Hours (Total) / Number of Units (Total)					
2 theoretical hours + 3 practical hours (75 hours) / 3.5 units					
7. Course administrator's name (mention all, if more than one name)					
Name: M.D. Zaman Nadhim Taher Email: M.D. Saif Ali					
8. Course Objectives					
theoretical: Enabling the student to understand and absorb what is related to dairy principles And its relationship to the dairy industry and its preservation - Enabling the student to know the most important methods of preserving milk - Enabling the student to become familiar with the most important sources of contamination in milk - Empowering the student with the ability to detect types of spoilage in milk - The student can judge the types of milk and how quickly it spoils			practical: Enabling the student to become familiar with the most important laboratory methods for detection and to become familiar with the most important analytical methods for analyzing milk products		
9. Teaching and Learning Strategies					
theoretical: -Interactive lecture - Brainstorming - Dialogue and discussion - Assigning tasks and reporting - Presentations of models of milk spoilage due to microbial contamination - He is assigned to prepare a diligence report and discuss it with the students			practical: - Assigning group work to reveal leadership skills - Assigning tasks and reporting for each experiment		
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2Theoretical 3Practical	THEORETICAL B1: The student evaluates dairy and the positive and negative relationship with the composition	THEORETICAL Milk Definitions - Factors Affecting milk composition practical :	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL	Shortexams, assignments, discussions

		of dairy products PRACTICAL: C5: Checks the method of receiving the milk	Sampling methods	Assigning tasks and reports	
2	2Theoretical 3Practical	THEORETICAL C1: The student learns to study and identify all the properties of milk PRACTICAL : B6: Detects sensory tests of milk	THEORETICAL Physical properties of milk practical : Sensory tests and milk judging	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
3	2Theoretical 3Practical	THEORETICAL B2: The student learns about examining the chemical composition of fat, lactose, and water PRACTICAL : B7: Measures the percentage of fat in milk	THEORETICAL Water-fat-lactose practical : Estimating the percentage of fat in milk	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
4	2Theoretical 3Practical	THEORETICAL A1: The student examines the laboratory analysis and estimation of types of milk proteins PRACTICAL : C6: Discovers methods of milk adulteration	THEORETICAL Protein estimation practical : Milk adulteration and methods for detecting it	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
5	2Theoretical 3Practical	THEORETICAL C2: The student analyzes, estimates and studies the chemical composition of milk practical : C7: Tests the level of contamination in milk and methods for detecting contamination	theoretical Enzymes - salts Mineral - vitamins practical : Bacteriological examinations of milk	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
6	2Theoretical 3Practical	THEORETICAL C3: The student judges the detection of contaminants in milk and milk products practical : B8: Try different types of acidity measurements in milk	THEORETICAL Microbiology in the milk practical : Estimation of milk acidity	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
7	2Theoretical 3Practical	THEORETICAL C4: The student studies and reviews infectious diseases and determines their causes practical : B9: Explains the	THEORETICAL Transmitted diseases Milk road practical : Detection of milk taken from cattle infected with mastitis	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions

		causes of mastitis			
8	2Theoretical 3Practical	THEORETICAL A2: The student seeks to use mathematical and mathematical equations to adjust milk fat PRACTICAL : B10: It continues to find out which substances increase the stability of milk	THEORETICAL Adjusting the fat percentage in Milk (Pearson box) practical : Milk stability tests	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
9	2Theoretical 3Practical	THEORETICAL B3: The student judges to work on determining the routes for receiving and distributing milk PRACTICAL : C8: Discovers how to make yogurt	THEORETICAL Prepare milk in Farm and milk receiving practical : Milk fermentation industry	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
10	2Theoretical 3Practical	THEORETICAL A3: The student experiences the use of milk separator devices and modern methods for separating milk fat PRACTICAL: B11: Examines the types of curdiness of milk	THEORETICAL Milk separator and industry Cream practical : Cheese making	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
11	2Theoretical 3Practical	THEORETICAL B4: The student experiments with using methods of pasteurizing and sterilizing milk and preserving it for the longest period PRACTICAL: B12: Explains methods of making cream	THEORETICAL Thermal transactions For milk practical : Cream industry	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
12	2Theoretical 3Practical	THEORETICAL E1: The student produces cheese, yogurt, and enriched and dried milk PRACTICAL: C10: Discovers how to make butter	THEORETICAL Cheese making And fermented milk practical : Butter industry	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
13	2Theoretical 3Practical	THEORETICAL A4: The student leads discussion groups related to milk safety and ways to prevent it PRACTICAL: B13: Identify the best way to calculate ice cream mixture	THEORETICAL Report and discuss practical : Calculations for making milk ice cream mixes	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
14	2Theoretical 3Practical	THEORETICAL B5: The student identifies health risks, their impact	THEORETICAL A field visit to a dairy factory and submitting	THEORETICAL audio methods, Writing on the board	Shortexams, assignments, discussions

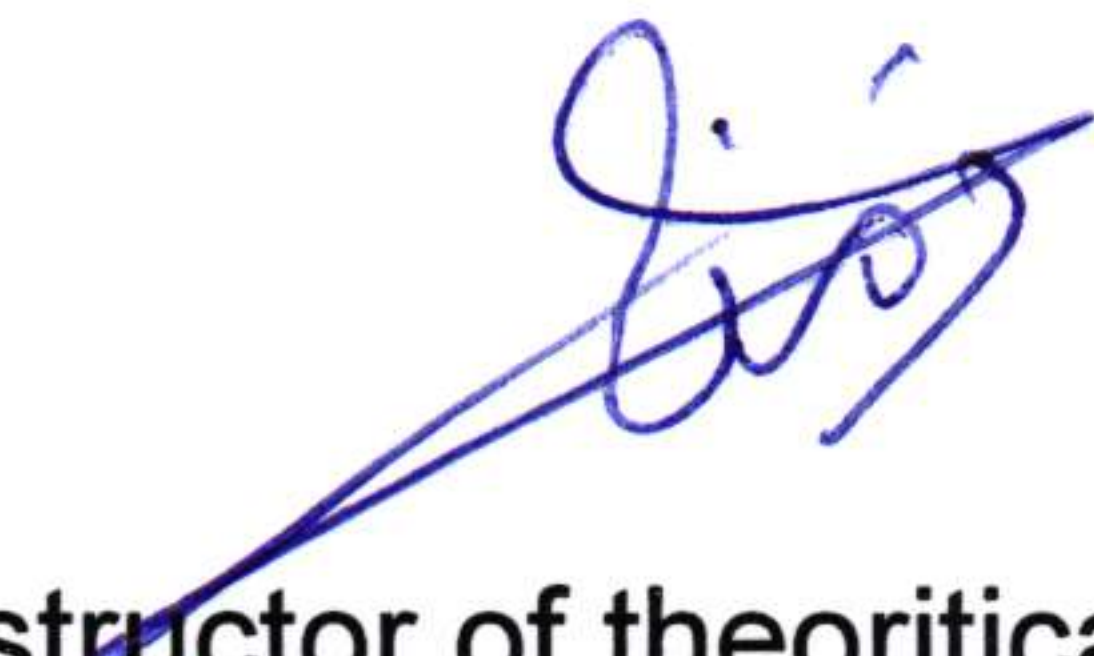
		on human health, and the impact of negligence on public health PRACTICAL : C11: Testing the manufacture of milk ice	a report on the microorganisms common in milk contamination practical : Manufacture of milk ice cream	Direct dialogue style PRACTICAL Assigning tasks and reports	
15	2Theoretical 3Practical	THEORETICAL e1 The student A5: The student experiences the types of work steps in dairy factories PRACTICAL: B14: Experiment with making water ice	THEORETICAL A field visit to a food factory and submitting a report on microorganisms common in food contamination practical : Water ice industry	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, 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	Practical Laboratory project	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%

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	General dairy principles, Al-Shabibi
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 General dairy principles, Jamal al-Din Abdel Tawab
Electronic References, Websites	Scientific electronic websites specialized in studying milk its processing

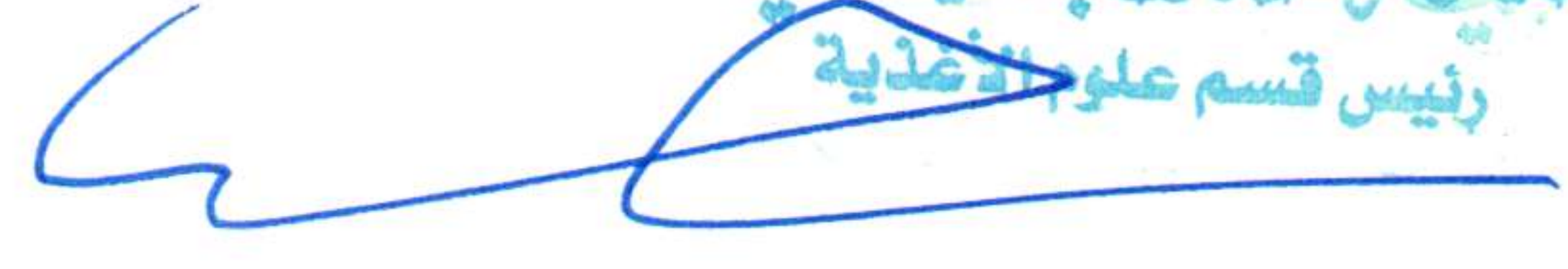

Instructor of theoretical part

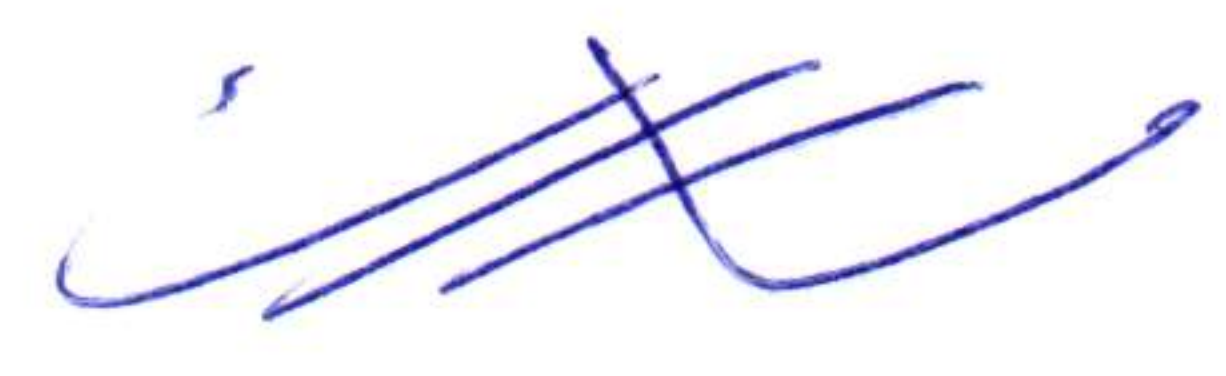
Dr. Zaman nadhim taher

Instructor of practical part

Dr. Saif Ali

الأستاذ الدكتور
سبيته خلف بلوي
رئيس قسم علوم الأغذية
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Chairman of the scientific committee

Prof. Dr. Moafak mahmood ahmed

Head of the department of Food science

Prof. Dr. Sumiya kalaf badawi

