

Course Description Form

1. Course Name:	
Principles of dairy	
2. Course Code:	
PRPD227	
3. Semester / Year:	
Second semester/second stage/2023-2024	
4. Description Preparation Date:	
2024/2/1	
5. Available Attendance Forms:	
Attendance lesson	
6. Number of Credit Hours (Total) / Number of Units (Total): units	
75 hours/3.5 units	
7. Course administrator's name (mention all, if more than one name):	
Name: dr. Azhar Ibrahim shukur Email: azhar.Ibrahim@uomosul.edu.iq Name : M.M. Waed allah hashim Email: masterwaad@uomosul.edu.iq	
8. Course Objectives	
Theoretical: - 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 with 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	Name of Unit or subject	Learning method	Evaluation method
First	2Theoretical 3Practical	b 1 : Shows the definitions of n and the factors affecting it Milk composition b 7: Examines different sample Of milk	Definitions of milk - facto affecting the composition of milk Sampling methods	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Second	2Theoretical 3Practical	C 1/ Explains the physical properties of milk b 8/ List the types of preservatives	Physical properties of milk Sampling method	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Third	2Theoretical 3Practical	b 2/ Familiar with the composition of fat and essenti fatty acids b9: Explains sensory tests of r	Milk ingredients Water-fat-lactose Sensory tests and milk judg	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Fourth	2Theoretical 3Practical	b 3/ Milk Protein Judges / The importance of proteins in the body b 10/ : Shows the factors that ar related to sensory tests of milk	Protein Sensory tests and milk judging Tender .	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Fifth	2Theoretical 3Practical	d 1/ Enumerate the enzymes fo in milk b 11: Applies the method for estimating the percentage of f milk	Enzymes - mineral salts – vitamins Estimating the percentage fat in milk	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions

Sixth	2Theoretical 3Practical	A 1/ Identify the most important microorganisms common in... Milk, which causes spoilage of milk and beneficial bacteria Used as starter b 12/ Distinguish between fat percentages in different types of milk	Microorganisms in milk Estimating the percentage of fat in milk	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Seventh	2Theoretical 3Practical	A2: Identify microbiological characteristics For milk products B13: Prove the method of adulterating milk	Transmitted diseases Milk road Milk adulteration	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
eighth	2Theoretical 3Practical	C2/Explains the importance of knowing the Pearson square method b 14/ Documents the distinction between types of fraud	Adjusting the percentage of fat in milk (Pearson square) Milk adulteration	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Ninth	2Theoretical 3Practical	a 3/Familiar with routine qualitative examinations C3/ examines the bacteriological tests of the milk	Various milk tests Bacteriological examination of milk	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Tenth	2Theoretical 3Practical	a 4/ Learn about the importance of the milking process / the mechanics of milking / cleaning and disinfecting the milking machine C4/ The student organizes each examination individually	Preparing milk on the farm and receiving the milk Bacteriological examination of milk	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Eleventh	2Theoretical 3Practical	b 4/ Learn about the sorting method, the types of cream, and purposes for which the cream is used C5/ Measures the amount of chemicals needed to measure the acidity of milk	Milk sorting and cream manufacturing Estimation of milk acidity	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Twelfth	2Theoretical 3Practical	e1/ It judges the thermal treatment of milk, including pasteurization, sterilization, and boiling, and the effect on the milk d 2/ Shows the types of acidity	Thermal parameters of milk	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and	Short exams, assignments, or discussions

		milk	Estimation of milk acidity	reporting	
Thirteenth	2Theoretical 3Practical	e 2/ Explains the method making fermented milk d 3/ Try to detect mastitis	Milk fermentation industry Detection of mastitis	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Fourteenth	2Theoretical 3Practical	b 5: Determine a method for making cheese d 4: Enumerates the types of t	Cheese making Detection of mastitis?	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions
Fifteenth	2Theoretical 3Practical	b 6: Communicates with one of the dairy producing factories d 5: Checks the stability of milk	Solve the problem Milk stability tests	Theoretical: Auditory methods Writing style on the blackboard Direct dialogue style practical : Assigning tasks and reporting	Short exams, assignments, or discussions

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)	General dairy principles (Al-Shabibi). Publications of the University of Mosul. Iraq.
Main references (sources)	- Magazines, scientific articles specialized in the field of dairy
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 and its processing


Lecturer of theoretical part

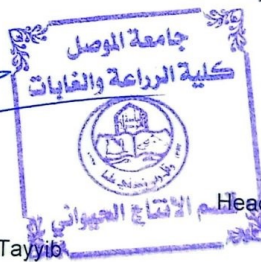
dr. Azhar Ibrahim shukr


Lecturer of practical part

M.M. Waed allah hashim


Chair of scientific committee

Prof. Dr. Muthanna Ahmed Muhammad Tayyib




Head of the Animal Production Department

Prof. Dr. Omar Diaa Muhammad