

Course Description Form

1. Course Name:					
Dairy microbiology					
2. Course Code:					
DAMI372					
3. Semester / Year:					
Second semester (spring) / 2024-2025					
4. Description Preparation Date:					
1/2/2025					
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: Dr.Shaymaa Jawad Mahmood Dr. Jwan khaled					
8. Course Objectives					
<p>1. To enable the student to understand everything related to dairy microorganisms.</p> <p>2. To enable the student to identify the sources of microbiological contamination of milk and its products.</p> <p>3. To enable the student to become familiar with the genera of lactic acid bacteria.</p> <p>4. To enable the student to understand methods for eliminating organisms that contaminate dairy products.</p> <p>5. To enable the student to become familiar with the most important laboratory methods for detecting dairy microorganisms and practical experiments to diagnose organisms that contaminate dairy products.</p>					
9. Teaching and Learning Strategies					
<p>1. Interactive lecture</p> <p>2. Brainstorming</p> <p>3. Dialogue and discussion</p> <p>4. Assigning reports</p> <p>5. Conducting monthly and daily exams</p> <p>6. Self-learning</p> <p>7. Practical exercises</p>					
10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2 Theoretical 3 Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and	Theoretical Milk as a growth medium Microscopic	THEORETICAL audio methods, Writing on the board	Short exams, assignments, discussions

		related topics. Practical: b1: The student acquires the practical and intellectual knowledge and concepts that will help him/her in the field of microbiology.	microbes Practical Samples are prepared for examination Microbial	Direct dialogue style PRACTICAL Assigning tasks and reports	
2	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: d1: Acquire skills in handling laboratory tests related to microbiology.	Theoretical Sources of milk contamination With microbes Practical Dye Reduction assays	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
3	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: b1: The student acquires the practical and intellectual knowledge and concepts that will help him/her in the field of microbiology.	Theoretical Lactic acid bacteria genera Practical Methods for Detecting coli bacteria	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
4	2Theoretical 3Practical	Theoretical: b2: The student is familiar with the most important types of fungi and viruses related to dairy products. Practical: c1: Uses the information and available techniques to master their work and employs them appropriately for various analytical processes.	Theoretical For important microbes in Milk and its products - molds - Yeasts - viruses Practical Standard method of detection coli bacteria	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
5	2Theoretical 3Practical	Theoretical: b2: The student will become familiar with the most important types of fungi and viruses related to dairy products. Practical: d1: Acquire skills in	Theoretical Important microbe in Milk and its products - molds - Yeasts - Viruses Practical IMVC tests	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions

		handling laboratory tests related to dairy microbiology.			
6	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: d1: Acquire skills in handling laboratory tests related to microbiology.	Theoretical Ways to control Milk microbes Practical Methods for counting milk bacteria	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
7	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: d1: Acquire skills in handling laboratory tests related to microbiology.	Theoretical Natural inhibitors In the milk Practical Sources of raw milk contamination	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
8	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: c1: Uses the information and available techniques to master their work and employs them appropriately for various analytical processes.	Theoretical Market milk microbiology Practical Scientific visit	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
9	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: b1: The student acquires the practical and intellectual knowledge and concepts that will help him/her in the field of microbiology.	Theoretical Microbiology of primers Practical Tests of milk produced from infected livestock Udder	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
10	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept	Theoretical Dairy microbiology Fermented and	THEORETICAL audio methods,	Shortexams, assignments,

		of microbiology and related topics. Practical: b1: The student acquires the practical and intellectual knowledge and concepts that will help him/her in the field of microbiology.	therapeutic Practical Raw milk tests And pasteurized milk	Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	discussions
11	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: b1: The student acquires the practical and intellectual knowledge and concepts that will help him/her in the field of microbiology.	Theoretical Microbiology of cream and butter Practical Microbial examination of butter And cream	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
12	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: b1: The student acquires the practical and intellectual knowledge and concepts that will help him/her in the field of microbiology.	Theoretical Cheese microbiology Practical Microbial examination of cheese	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
13	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: b1: The student acquires the practical and intellectual knowledge and concepts that will help him/her in the field of microbiology.	Theoretical Milk microbiology Desiccant dryer and condenser Practical Microbial examination of milk Dry	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
14	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: b1: The student acquires the practical and intellectual knowledge and concepts that will	Theoretical Ice cream microbiology Lactobacillus Practical Microbial examination of ice cream	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions

		help him/her in the field of microbiology.			
15	2Theoretical 3Practical	Theoretical: a1: The student becomes familiar with the concept of microbiology and related topics. Practical: b1: The student acquires the practical and intellectual knowledge and concepts that will help him/her in the field of microbiology.	Theoretical Curriculum review Practical Reference and discussion	THEORETICAL audio methods, Writing on the Board Direct Dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions

11. Course Evaluation

t	Evaluation methods	Evaluation date (one week)	Grade	Relative weight %
1	Final theoretical report + theoretical practical reports	Theoretical 15 weeks Practical 1-15 weeks	7theoretical + 6 practical	13%
2	Short test 1 Quiz	3 weeks	4theoretical + 2practical	6%
3	Midterm exam (theoretical and practical)	9 weeks	10theoretical + 5 practical	15%
4	Short test 2 Quiz	12 weeks	4 theoretical + 2 practical	6%
5	Final practical test	practical exams week	20	20%
6	Final theoretical exam	theoretical exams week	40	40%
			100	100

12. Learning and Teaching Resources

Required textbooks (curricular books, if any)
Main references (sources)	Dairy microbiology, Robinson Principles of microbiology / Dr. Fayez Al-Ani And Dr. Amin Suleiman Badawi
Recommended books and references (scientific journals, reports...)
Electronic References, Websites	Internet sites for specialized topics Search Google

مدرس المادة العملي
Dr. Iwan khaled

رئيس قسم علوم الاغذية
ا.م.د. طه محمد تقي

مدرس المادة النظري
Dr. Shaymaa Jawad Mahmood

رئيس اللجنة العلمية
ا.م.د. طه محمد تقي

