Course Description Form

1. Course Name:
Butter and ice cream
2. Course Code:
BUIC471
3. Semester / Year:
First semester (fall) / 2024-2025
4. Description Preparation Date:
1/2/2025
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)
Name: dr. Azhar Ibrahim shukur Email: azhar.Ibrahim@uomosul.edu.iq Name: Assinant Lectuer israa maan ahmed Email Israa.maan@uomosul.edu.iq
8. Course Objectives

Theoretical: * Enabling the student to understand what is related to the manufacture of butter and ice cream and to identify the widespread types of them * Enabling the student to become familiar with the most important and common defects of butter and ice cream * The student can judge different types of butter	practical: - Enabling the student to learn about th most important laboratory methods for producing butter and ice cream

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and ice cream	

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 a 1: Learn about butter, its standard properties, how it is made, the defects that occur in butter, how to make margarine and differentiate it from natural butter, and how to convert butter into ghee. Practical b 1: Explain the scientific basis for the milk sorting process, the method of estimating acidity and how to neutralize it in cream, and the steps of butter making.	Theoretical Historical overview of the butter industry - Definition of butter Practical: Milk separation	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 a 1: Learn about butter, its standard	Theoretical: General steps for making/separating	theoretical: Methods	Short exams, assignments, an

		properties, how it is made, the defects that occur in butter, how to make margarine and differentiate it from natural butter, and how to convert butter into ghee. Practical b 1: Explain the scientific basis for the milk sorting process, the method of estimating acidity and how to neutralize it in cream, and the steps of butter making.	butter Practical: Separating milk	Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	discussions
3	2Theoretical 3 practical	Theoretical a 1: Learn about butter, its standard properties, how it is made, the defects that occur in butter, how to make margarine and differentiate it from natural butter, and how to convert butter into ghee. Practical b 1: Explain the scientific basis for the milk sorting process, the method of estimating acidity and how to neutralize it in cream, and the steps of butter making.	Theoretical: Pasteurization of cream prepared for butter production Practical: Chemical tests of cream	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
4	2Theoretical 3 practical	Theoretical a 1: Learn about butter, its standard properties, how it is	Theoretical Disadvantages of Butter	theoretical: Methods Audio	Short exams, assignments, and

		that occur in butter, how to make margarine and differentiate it from natural butter, and how to convert butter into ghee. Practical b 1: Explain the scientific basis for the milk sorting process, the method of estimating acidity and how to neutralize it in cream, and the steps of butter making.	Practical Checking the Acidity of Cream and Implementing Acid Adjustment with Different Alkalis	On the board Dialogue style Direct Practical: Assigning tasks and reporting	discussions
7	2Theoretical 3 practical	Theoretical a 1: Identify butter, its standard properties, how it is made, and the defects that occur in butter. Understand how to make margarine and differentiate it from natural butter, and how to convert butter into ghee. Practical b 2: Apply the steps for making butter, water ice cream, and cream.	Theoretical Ghee Practical Butter Making	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
8	2Theoretical 3 practical	Theoretical a 2: Familiarize yourself with the types of dairy ice cream and the ingredients used in its production, and identify the different types of ice cream and their	Theoretical Historical overview of ice cream - Definition of ice cream	theoretical: Methods Audio Writing style On the board Dialogue style Direct	Short exams, assignments, and discussions

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		manufacturing methods. Practical b 2: Apply the steps for making butter, water ice cream, and cream ice cream.	Practical Butter making	Practical: Assigning tasks and reporting	
9	2Theoretical 3 practical	Theoretical a 2: Familiarize yourself with the types of dairy ice cream and the ingredients used in its production, and identify the different types of ice cream and their manufacturing methods. Practical b 2: Apply the steps for making butter, water ice cream, and cream ice cream.	Theoretical Nutritional value of ice cream Practical Ghee (free fat)	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions
10	2Theoretical 3 practical	Theoretical a 2: Familiarize yourself with the types of dairy ice cream and the ingredients used in its production, and identify the different types of ice cream and their manufacturing methods. Practical b 2: Apply the steps for making butter, water ice cream, and cream ice	Theoretical Ingredients used in the manufacture of dairy and non-dairy ice cream Practical Creamy ice cream	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions

		cream.			
11	2Theoretical 3 practical	Theoretical a 2: Familiarize yourself with the types of dairy ice cream and the ingredients used in its production, and identify the different types of ice cream and their manufacturing methods. Practical b 2: Apply the steps for making butter, water ice cream, and cream ice cream.	Theoretical Properties of Mixtures Practical Calculating the Ingredients of a Creamy Ice Cream Mixture	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	Theoretical a 2: Familiarize yourself with the types of dairy ice cream and the ingredients used in its production, and identify the different types of ice cream and their manufacturing methods. Practical b 2: Apply the steps for making butter, water ice cream, and cream ice cream.	Theoretical How to Make Milk Ice Cream Practical Calculating the Ingredients of a Creamy Ice Cream Mixture	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 a 2: Familiarize yourself with the types of dairy ice cream and the ingredients used in its production, and	Theoretically Honestly, the milky ice cream Practically Calculating the ingredients of a milky	theoretical: Methods Audio Writing style On the board	Short exams, assignments, and discussions

		identify the different types of ice cream and their manufacturing methods. Practical b 2: Apply the steps for making butter, water ice cream, and cream ice cream.	ice cream mix	Dialogue style Direct Practical: Assigning tasks and reporting	
14	2Theoretical 3 practical	Theoretical a 2: Familiarize yourself with the types of dairy ice cream and the ingredients used in its production, and identify the different types of ice cream and their manufacturing methods. Practical b 2: Apply the steps for making butter, water ice cream, and cream ice cream.	Theoretical Soft Ice Cream/Sherbet/Water Ice Cream Problem Solving Practical Water Ice Cream	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	Theoretical a 1: Learn about butter, its standard properties, how it is made, and the defects that occur in butter. Learn how to make margarine and differentiate it from natural butter, and how to convert butter into ghee. Practical d 1: Communicate	Theoretical Foam Theories Practical Problem Solving	theoretical: Methods Audio Writing style On the board Dialogue style Direct Practical: Assigning tasks and reporting	Short exams, assignments, and discussions

		with a dairy factory			

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)	The Book of Butter and Ice Creams (Al-Samarrai et al.). Mosul University Publications, Iraq.
Main references (sources)	- Dairy Ice Cream (Salim)
Recommended books and references (scientific journals, reports...)	Numerous books, journals, and scientific articles
Electronic References, Websites	Google Search

Lecturer of theoritical part dr. Azhar Ibrahim shukr

: Assinant Lectuer israa maan ahmed

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

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

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