Course Description Form

1. Course Name:

Food microbiology

2. Course Code:

FOMI366

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: Dr. Tariq Zaid Ibrahim and MSc. Enas Mounir Abdel Majeed

8. Course Objectives

Theoretical

- Enabling the student to understand and comprehend what is related to the biosynthesis of microscopic foods and their relationship to the food industry and food preservation.
- Enabling the student to know the most important methods of food preservation and means of protection
- Enabling the student to become familiar with the most important sources of food contamination
- Empowering the student with the ability to detect different types of food spoilage
- The student can judge the types of foods and their readiness to spoil and how quickly they spoil

Practical

- Enabling the student to become familiar with the most important laboratory methods in detecting microscopic food organisms and practical experiments to diagnose contamination in various foods.

9. Teaching and Learning Strategies

Theoretical

- Interactive lecture
- Brainstorming
- Dialogue and discussion
- Assigning reports
- -Conducting monthly and daily examinations

Practical

Interactive lecture

- -Discussion, dialogue, brainstorming
- -Conducting laboratory experiments
- -Assigning reports
- -Conducting daily and monthly examinations
- Presentations of examples of food spoilage due to molds and yeasts
- He is assigned to prepare a report entitled from his own diligence and prepare it for discussion with the students

10. C	ourse Structu	re			
Week	Hours	Required Learning Outcomes	Unit or subject name	method	Evaluation
	2Theoretical 3Practical	concept of microorganisms and their positive and negative	Food microbiology: its	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
2	2Theoretical 3Practical	THEORETICAL c1 The student explains the most important sources of food contamination PRACTICAL: b7The student discovers which water samples are contaminated with feces	THEORETICAL Sources of food contamination practical: Microbial examination of water	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 is familiar with the most important factors affecting food contamination and compares types of	Microbial examination of water	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
4	2Theoretical 3Practical		THEORETICAL Controlling food contamination	THEORETICAL audio methods, Writing on the	Shortexams, assignments, discussions

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products are subject to spoilage or not PRACTICAL: b8 The student measures which types of pasteurization are most suitable for food preservation practical: a B8 The student masters methods of protecting food from contamination practical: b8 The student measures which types of pasteurization are most suitable for food preservation are most suitable for food from are from food from from from from from fro	Т	1	4	(f 1)		1
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molds)) practical: c5 The student distinguishes methods for isolating types of bacterial spores grains, flour and sugary substances and reports Assigning tasks and reports			common in foods	Microbial	style	
practical: c5 The student distinguishes methods for isolating types of bacterial spores sugary substances and reports			(fungi (yeasts and	examination of	PRACTICAL	
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methods for isolating types of bacterial spores			c5 The student			
isolating types of bacterial spores			distinguishes			
bacterial spores			methods for			
bacterial spores			isolating types of			
contaminated with						
			contaminated with			
sugary substances			sugary substances			
	7	2Theoretical			THEORETICAL	Shortexams,
		3Practical			audio methods,	assignments,
					Writing on the	discussions
most important (bacteria and board			1		board	
microorganisms viruses) Direct dialogue			_		Direct dialogue	
common in foods practical : style				practical:		
(bacteria, viruses, Microbial PRACTICAL			(bacteria, viruses,	Microbial		
and protozoa) examination of Assigning tasks			and protozoa)	examination of	Assigning tasks	
practical: grains, flour and and reports			practical:	grains, flour and		
c5 The student sugary substances			c5 The student	sugary substances		

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		identifies methods			
		for isolating types			
		of bacterial spores			
		contaminated with			
		sugary substances		A Comment of the Comm	
8	2Theoretical	THEORETICAL	THEORETICAL	THEORETICAL	Shortexams,
	3Practical	a2The student	Microbiology of	audio methods,	assignments,
		explains the most	grains, flour, its	Writing on the	discussions
		important	products, and	board	113 8
		microorganisms	sugary substances	Direct dialogue	345
		and their	practical:	style	
		relationship to	Microbial	PRACTICAL	
		grains, flour, and	examination of	Assigning tasks	
		their products	grains, flour and	and reports	
		PRACTICAL:	sugary substances		
		b13 The student			
		reveals the types			
		of pollutants and			
		their quantities in			
		flour and grains			
9	2Theoretical	THEORETICAL	THEORETICAL	THEORETICAL	Shortexams,
	3Practical	c3 The student	Microbial spoilage	audio methods,	assignments,
		becomes familiar	of meat, eggs and	Writing on the	discussions
		with the most	fish	board	
		important	practical:	Direct dialogue	
		microorganisms	Microbial	style	
		contaminating	examination of	PRACTICAL	
		meat, eggs, and	meat	Assigning tasks	
		fish		and reports	
		PRACTICAL:			
		c6 The student			
		distinguishes			
		which type of			
		meat is most			
		susceptible to			
		contamination			
10	2Theoretical	THEORETICAL	THEORETICAL	THEORETICAL	Shortexams,
	3Practical	a3 The student	Microbial spoilage	audio methods,	assignments,
		learns about the	of fruits and	Writing on the	discussions
		most important	vegetables	board	
		microorganisms	practical:	Direct dialogue	
		that cause spoilage	Microbial	style	
		of vegetables and	examination of	PRACTICAL	
		fruits	spices, fruits and	Assigning tasks	
		PRACTICAL:	vegetables	and reports	
		b9 The student			
		discovers the			
	*	types and			
		quantities of			
		pollution that			
		affect fruits and			
	1	1	L		

		vegetables			
11	2Theoretical 3Practical	a4The student learns about the chemical and physical defects of canned goods and the ways they spoil PRACTICAL: b10 The student tests types of canned food	THEORETICAL Canned food spoilage practical: Microbial examination of canned goods	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
12	2Theoretical 3Practical	THEORETICAL a5 The student judges the foods related to the growth of food poisoning causes and the methods of transmission of microorganisms to the consumer PRACTICAL: b11 The student experiments with different types of media for isolating pathogenic bacteria that cause food poisoning	THEORETICAL Food poisoning practical: Isolating some types of pathogenic bacteria that cause poisoning	THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
13	2Theoretical 3Practical			THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions
14	2Theoretical 3Practical		THEORETICAL A field visit to a food factory and submitting a report on	THEORETICAL audio methods, Writing on the board Direct dialogue	Shortexams, assignments, discussions

		and the impact negligence on public health PRACTICAL : b12 The studen examines various samples of juice microbially to determine their suitability for consumption	cor cor pra Mid exa juid	croorganismon in footical : crobial mination of the ces	od	PRACTICAL Assigning tasks and reports	Winds of the state
15	2Theoretical 3Practical	A field visit to a food factory and submitting a report on microorganisms common in food		THEORETICAL audio methods, Writing on the board Direct dialogue style PRACTICAL Assigning tasks and reports	Shortexams, assignments, discussions		
11.	Course Evalu	samples uation					
t	Evaluation meth	ods	Evaluat week)	ion date	(one	Grade	Relative weight %
	theoretical practical reports Practic			tical 15 wee		7theoretical + 6 practical	13%
2	Short test 1 Quiz 3 week			S		4theoretical + 2practical	6%
- 1	Midterm exam (theoretical and 9 very practical)) weeks		10theoretical + 5 practical	15%
4	Short test 2 Quiz			12 weeks		4 theoretical + 2 practical	6%
	Final practical te	practical exams week		20	20%		
6 Final theoretical exam the			theoret	eoretical exams week		40	40%
						100	100
		Teaching Res					
2	references (source	urricular books, if	any)	Food Micr	obiolo	gy	
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Ye2	als, reports)	and references (s	scientific	roou Mil	Cropi(ology 2008 by A	auain and Mo
Electronic References, Websites				WHO, FDA			
		TTUDUILUU		V V .			

Instructor of theoritical part

Dr. Tariq Zaid Ibrahim

Instructor of practical part

Enas Moneer

Chairman of the scientific committee

Prof. Dr. Moafak mahmood ahmed

Head of the department of Food science

Prof. Dr. Sumaya khalaf badawi