Course Description Form

1. Course Name: Analytical chemistry

2. Course Code: FHN23016

3. Semester / Year:second

4. Description Preparation Date:٣٠ /4/٢٠٢٤

5. Available Attendance Forms: class

6. Number of Credit Hours (Total) / Number of Units (Total):150/6

7. Course administrator's name (mention all, if more than one name)

Name: Rana khadim Ridha
Email:

8. Course Objectives

- The student learns about the importance of analytical chemistry and its types. - The student learns the methods of finding concentrations of chemicals and the types of chemical titration. - The student learns the basic principles of quantitative and qualitative analysis methods in analytical chemistry.	• ..... • ..... • .....

9. Teaching and Learning Strategies

Strategy	1- Lectures 2- Discussion 3- Brainstorming Problem solving 4- Practical presentations& Simulation Method 5- Lab works(Practical in computer Lab

	6- Projects Self-learning 7- Cooperative Learning.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Analytical chemistry classificati steps chemical analysis.		Theoretical-practical	Test
2	2	Methods expression concentrat Examples solution of concentrat		Theoretical-practical	Test
3		titrations simple system, a base,		Theoretical-practical	Test
4	2	Volumetric analysis, Clarificatio of the gen principles volumetric analysis.		Theoretical-practical	Test
5	2	neutralizat titrations simple system, a base,		Theoretical-practical	Test
6	2	Report ab subjects week 1, 2 and 5.		Theoretical-practical	Test
7	2	*Precipitati titration*		Theoretical-practical	Test
8	2	*Precipitati titration*		Theoretical-practical	Test
9	2	*Complex-io Formation titration. Oxidation-reduction*		Theoretical-practical	test

		titrations			
10	2	Oxidation-reduction titrations .		Theoretical-practical	Discussion
11	2	*Precipitations titration*		Theoretical-practical	Discussion
12	2	Introductio to We Quantitativ Analysis v Explanatio of Method Weight Analysis. Detailed explanatio the we analysis steps.		Theoretical-practical	Discussion
13	2	Step We Factor, General R Finding Weight Fa .		Theoretical-practical	Discussion
14	2	**Seminar**		Theoretical-practical	Discussion
15	2	Analytical chemistry classificati steps chemical analysis.		Theoretical-practical	Discussion

11. Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12. Learning and Teaching Resources

Required textbooks (curricular books any)	7th Edition of Analytical Chemistry Fundamentals of Analytical Chemistry Principles and Practice of Analytical Chemistry
Main references (sources)	Modern Analytical Chemistry.
Recommended books and references (scientific journals, reports…)	7th Edition of Analytical Chemistry Fundamentals of Analytical Chemistry Principles and Practice of Analytical Chemistry

Electronic References, Websites	https://en.wikipedia.org/wiki/Analytical_chemistry

Course Description Form

1-Course Name: Biosafety and security
2-Course Code: FHN12010
3-Semester / Year:second
4-Description Preparation Date:٣٠ /4/٢٠٢٤
5-Available Attendance Forms: class
6-Number of Credit Hours (Total) / Number of Units (Total):125/5
7-Course administrator's name (mention all, if more than one name)
Name: Asst.Prof. Dr. Ali R. Mulakhudair Email:
8–Course Objectives

1. Demonstrate an understanding of the structural similarities and differences among microbes and the unique structure/function relationships of prokaryotic cells. 2. Comprehend the fundamentals of dairy microbiology. 3. Appreciate the diversity of dairy microorganisms and microbial communities in milk and milk products and recognize how microorganisms solve the fundamental problems their environments present. - 4. Recognize how the underlying principles of epidemiology of disease and pathogenicity of in milk and milk products	• ..... • ..... • .....

9-Teaching and Learning Strategies

Strategy	Type something like: The main strategy that will be adopted in delivering this mo dule encourage students' participation in the exercises, while at the same time refinin and expanding their critical thinking skills. This will be achieved through classes, inte ractiv tutorials and by considering types of simple experiments involving some samplin g acti that are interesting to the students.

10-Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation meth od
1	2	Introduction biosafety security		Theoretical-practica	Test
2	2	Biosafety barriers in la		Theoretical-practica	Test
3		Biosafety lev		Theoretical-practica	Test
4	2	Biological agents		Theoretical-practica	Test
5	2	Biorisk biohazard		Theoretical-practica	Test
6	2	Containment level		Theoretical-practica	Test
7	2	Mid-term Ex		Theoretical-practica	Test
8	2	Biorisk management system		Theoretical-practica	Test
9	2	Types biohazardous wastes		Theoretical-practica	Test
10	2	Disinfection decontamina		Theoretical-practica	discuss on

11	2	Accident response		Theoretical-practica	discuss on
12	2	Hazardous chemicals		Theoretical-practica	discuss on
13	2	Overview biological sa equipment		Theoretical-practica	discuss on
14	2	Overview security equipment		Theoretical-practica	discuss on
15	2	Biosecurity		Theoretical-practica	discuss on

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical fina tes

12-Learning and Teaching Resources

Required textbooks (curricular books, any)	Riedel S, & Hobden J.A., & Miller S, & Morse S.A., & Mietzner T. ., & Mitchell T.G., & Sakanari J.A., & Hotez P, & Mejia R(Eds.), (2019). awetz Adelberg's Medical Microbiology, 28e. M cGraw https://accesspharmacy.mhmedical.com/content.aspx?bookid=2629&se tionid
Main references (sources)	WILLEY, J. M., SHERWOOD, L. M., WOOLVERTON, C. J., & RESC (2012). Prescott's principles of microbiology. New York, McGraw-Hill
Recommended books and references (scientific journals, reports…)	Riedel S, & Hobden J.A., & Miller S, & Morse S.A., & Mietzner T. ., & Mitchell T.G., & Sakanari J.A., & Hotez P, & Mejia R(Eds.), (2019). awetz Adelberg's Medical Microbiology, 28e. M cGraw https://accesspharmacy.mhmedical.com/content.aspx?bookid=2629&se tionid
Electronic References, Websites	https://en.wikipedia.org/wiki/Analytical_chemistry

Course Description Form

1-Course Name: English Language

2-Course Code: UoB12345

3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Mustafa Abdulkareem Mukheef
Email:

8–Course Objectives

- To assist the learner to develop the language, literacy and numeracy skills related to English as a Foreign Language through the medium of the module themes and content.
- To enable the learner to communicate effectively and appropriately in real life situation.
- To facilitate the learner to read, interpret and comprehend a variety of materials using a range of media.
- To develop interest in and appreciation of English language and grammar.
- To develop and integrate the use of the four language skills i.e. Reading, Listening, Speaking and Writing.
- To revise and reinforce structure already learnt..

- .....
- .....
- .....

9–Teaching and Learning Strategies

Strategy	▪ Focus on academic language, literacy and vocabulary. ▪ Link background knowledge and culture to learning. ▪ Increase comprehensible input and language output. ▪ Promote classroom interaction.. Stimulate higher-order thinking skills and use of learning strategies.

10–Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Greetings and Farewells.		Theoretical-practical	Test
2	2	Your Wo Countries Nationalities.		Theoretical-practical	Test
3		All about you/ Jo Personal Informat and So Expressions.		Theoretical-practical	Test
4	2	Family and Frier Adjective+ Nouns		Theoretical-practical	Test
5	2	The Way I li Languages Nationalities/ Numbers and Price		Theoretical-practical	Test
6	2	Every day/ Present Time/ D of the Week.		Theoretical-practical	Test
7	2	My Faviourites/ Fo / Drinks/ Spo Pronouns….		Theoretical-practical	Test
8	2	Where I live/ Roo and Furnitu Directions Prepositions.		Theoretical-practical	Test
9	2	Times past/ P tense/ Saying Ye Irregular Verbs….		Theoretical-practical	test
10	2	We had a great ti Questions Negatives.		Theoretical-practical	Discussion
11	2	I can do that/ Requests and Offers/ Adverbs.		Theoretical-practical	Discussion
12	2	Please and thank y Some and any/ L and I would like.		Theoretical-practical	Discussion
13	2	Weather Forecast.		Theoretical-practical	Discussion

14	2	Here and n Present continu and Present simple		Theoretical-practical	Discussion
15	2	It's time to go/ Fut plans/ Revision.		Theoretical-practical	Discussion

11-Course Evaluation
30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12-Learning and Teaching Resources	
Required textbooks (curricular books any)	**John and Liz Soarse, *New Headway Plus: Beginner*. Oxford: Oxford University Press, 2014.**
Main references (sources)	**John and Liz Soarse, *New Headway Plus: Intermediate*. Oxford: Oxford University Press, 2010.**
Recommended books and references (scientific journals, reports…)	
Electronic References, Websites	https://en.wikipedia.org/wiki/Analytical_chemistry

Course Description Form

1-Course Name: Mathematics
2-Course Code: COFS1106
3-Semester / Year:second
4-Description Preparation Date:٣٠ /4/٢٠٢٤
5-Available Attendance Forms: class
6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Ahmed Abdulla Auda
Email:

8–Course Objectives

- Be able to apply problem-solving and logical skills
- Have a deeper understanding of mathematical theory.
- Have a solid knowledge of elementary statistics
- Mathematics provides an effective way of building mental discipline and encourages logical reasoning
- organize, represent, analyse, interpret data and make conclusions and predictions from its results

- .....
- .....
- .....

9–Teaching and Learning Strategies

Strategy	This module provides a comprehensive introduction to fundamental concepts in mathematic and calculus. It covers topics such as functions, inequalities, limits, derivatives, and integrals. The module aims to develop students' mathematical skills and problem-solving abilities in various fields of study. Emphasis is placed on understanding the theoretical concepts and applying them to real-world scenarios. The module also includes regular quizzes, mid-term exams, and a final exam to assess students' progress and understanding of the material.

10–Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction to Functions		Theoretical-practi	Test
2	2	Inequalities		Theoretical-practi	Test

3		Limits		Theoretical-practi	Test
4	2	Derivatives (Part 1)		Theoretical-practi	Test
5	2	Derivatives (Part 2)		Theoretical-practi	Test
6	2	Applications of Derivatives		Theoretical-practi	Test
7	2	Mid-Term Exam		Theoretical-practi	Test
8	2	Indefinite Integrals		Theoretical-practi	Test
9	2	Practice problems an exercises		Theoretical-practi	Test
10	2	Definite Integrals (Pa 1)		Theoretical-practi	Discussion
11	2	Definite Integrals (Part 2)		Theoretical-practi	Discussion
12	2	Applications of Integration		Theoretical-practi	Discussion
13	2	Differential Equation		Theoretical-practi	Discussion
14	2	Multivariable Calcul (Optional)		Theoretical-practi	Discussion
15	2	**Preparatory week before the final Exa**		Theoretical-practi	Discussion

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 theoretical final test 15 practical final test

12-Learning and Teaching Resources

Required textbooks (curricular books any)	An Introduction to Higher Mathematics، Patrick Kee،f2021 AN INTRODUCTION TO MATHEMATICS، A. N. WHITEHEAD,2
Main references (sources)	COMMON CORE STATE STANDARDS for MATHEMAT

	William Schmidt،2018
Recommended books and references (scientific journals, reports…)	An Introduction to Higher Mathematics، Patrick Kee،f2021 AN INTRODUCTION TO MATHEMATICS، A. N. WHITEHEAD,2
Electronic References, Websites	https://en.wikipedia.org/wiki/Analytical_chemistry

Course Description Form

1-Course Name: Microbiology
2-Course Code: FHN23016
3-Semester / Year:second
4-Description Preparation Date:٣٠ /4/٢٠٢٤
5-Available Attendance Forms: class
6-Number of Credit Hours (Total) / Number of Units (Total):175/7
7-Course administrator's name (mention all, if more than one name)
Name: Asst.Prof. Dr. Ali R. Mulakhudair Email:
8–Course Objectives

1. Demonstrate an understanding of the structural similarities and differences among microbes and the unique structure/function relationships of prokaryotic cells. 2. Comprehend the fundamentals of dairy microbiology. 3. Appreciate the diversity of dairy microorganisms and microbial communities in milk and milk products and recognize how microorganisms solve the fundamental problems their environments present. 4. Recognize how the underlying principles of epidemiology of disease and pathogenicity of in milk	• ….. • ….. • …..

and milk products. -	

9-Teaching and Learning Strategies

Strategy	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

10-Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction to microbial world		Theoretical-practical	Test
2	2	Microbial Structure Function		Theoretical-practical	Test
3		Microbial Metabolism		Theoretical-practical	Test
4	2	Microbial Grow		Theoretical-practical	Test
5	2	Microbial geneti		Theoretical-practical	test
6	2	Molecular Information F and Pro Processing		Theoretical-practical	Test
7	2	Mid-term Exam		Theoretical-practical	Test
8	2	Microbial Symbioses Humans		Theoretical-practical	Test
9	2	Virology		Theoretical-practical	Test
10	2	Person to Pe Bacterial and V Diseases		Theoretical-practical	Discussion

11	2			Theoretical-practical	Discussion
12	2	Vectorborne Soilborne Bacte and Viral Diseas		Theoretical-practical	Discussion
13	2	Waterborne Foodborne Bacterial and V Diseases		Theoretical-practical	Discussion
14	2	Introduction mycology		Theoretical-practical	Discussion
15	2	Introduction Parasitology		Theoretical-practical	Discussion

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12-Learning and Teaching Resources

Required textbooks (curricula books, if any)	Riedel S, & Hobden J.A., & Miller S, & Morse S.A., & Mietzner T.A., & Detrick B Mitchell T.G., & Sakanari J.A., & Hotez P, & Mejia R(Eds.), (2019). Jawetz, Melnic Adelberg's Medical Microbiology, 28e. McGraw https://accesspharmacy.mhmedical.com/content.aspx?bookid=2629&sectionid=217768
Main references (sources)	WILLEY, J. M., SHERWOOD, L. M., WOOLVERTON, C. J., & PRESCOTT, L (2012). Prescott's principles of microbiology. New York, McGraw-Hill.
Recommended books and references (scientific journals, reports…)	Riedel S, & Hobden J.A., & Miller S, & Morse S.A., & Mietzner T.A., & Detrick B, & Mitchell T.G., & Sakanari J.A., & Hotez P, & Mejia R(Eds.), (2019). Jawetz, Melnick, Adelberg's Medical Microbiology, 28e. McGraw Hill. https://accesspharmacy.mhmedical.com/content.aspx?bookid=2629&sectionid=217768
Electronic References, Websites	https://en.wikipedia.org/wiki/Analytical_chemistry

Course Description Form

1-Course Name: Physics

2-Course Code: COFS12012

3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Bashair saleh mehdi

Email:

8–Course Objectives

- This course deals with the basic concept of physics - This is the basic subject for introduction of biophysics . - To develop problem solving skills through the application of techniques. - To understand interaction of heat and temperature ,pressure on food components. - To solve some mathematic problem for biophysics concept. -	• ..... • ..... • .....

9–Teaching and Learning Strategies

Strategy	
	1. This course deals with the basic concept of physics 2. This is the basic subject for introduction of biophysics . 3. To develop problem solving skills through the application of techniques. 4. To understand interaction of heat and temperature ,pressure on food components. 5. To solve some mathematic problem for biophysics concept.

10–Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Ev
1	2	Viscosity		Theoretical-practical	

2	2	The Mechani properties materials		Theoretical-practical
3		Heat Temperature		Theoretical-practical
4	2	Motion in Dimension		Theoretical-practical
5	2	Laser and mec application		Theoretical-practical
6	2	Introduction optics		Theoretical-practical
7	2	Midterm exa Effects Radiation Humans		Theoretical-practical
8	2	Physical Properties Fluid		Theoretical-practical
9	2	Electric Curre		Theoretical-practical
10	2	Physical-Chemical Interactions food		Theoretical-practical
11	2	Pressure and temperature		Theoretical-practical
12	2	Conductive H Transfer		Theoretical-practical
13	2	Effect Irradiation Food safety quality		Theoretical-practical
14	2	Polymers Industry		Theoretical-practical
15	2	**Preparatory week before final Exam**		Theoretical-practical

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical fina tes

12–Learning and Teaching Resources	
Required textbooks (curricular if any)	Biophysics: An Introduction, Dadan Rosana , Mechanical and Electrical Technology, Wisnoe,2015
Main references (sources)	APPLIED BIOPHYSICS, Paata J. Kervalishvili,2021
Recommended books and references (scientific journals, reports…)	Biophysics: An Introduction, Dadan Rosana , Mechanical and Electrical Technology, Wisnoe,2015
Electronic References, Websites	https://ia800204.us.archive.org/30/items/biophysicscontep0

Course Description Form

1-Course Name: Dairy manufacturing	
2-Course Code: FHN24022	
3-Semester / Year:second	
4-Description Preparation Date:٣٠ /4/٢٠٢٤	
5-Available Attendance Forms: class	
6-Number of Credit Hours (Total) / Number of Units (Total):175/7	
7-Course administrator's name (mention all, if more than one name)	
Name: Dr.haneen Abdul Ameer Lateef Email:	
8–Course Objectives	
1- Recognizing the importance of the course from the scientific and practical point of view. 2- Teaching students the nutritional value of milk and its products. 3- Teaching the student the components of milk and its products and the percentage of these components.	• ..... • ..... • .....

4- Teaching the student the precise chemical composition of the components of milk and its products. 5- Teaching students the equipment and chemicals used in dairy production. 6- Teaching the student how to manufacture ice cream and dairy products. 7- Teaching students modern methods and means in the dairy industry. 8-Study the technologies used in the manufacture of different cheeses. 9- Studying the steps to control the quality of the production of cheese and fermented milk products. - 10-Studying the importance of preparing and equipping tools, supplies and production conditions in dairy factories.	

9-Teaching and Learning Strategies

Strategy	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

10-Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction and introduct the curriculum		Theoretical-practical	Test
2	2	Nutritional value of products		Theoretical-practical	Test

3		The economic importan milk and its products		Theoretical-practical	Test
4	2	Diseases transmitted by m		Theoretical-practical	Test
5	2	milk components Wate fatty substances		Theoretical-practical	Test
6	2	protein and the sugar lacto		Theoretical-practical	Test
7	2	Mid-term Exam		Theoretical-practical	Test
8	2	Vitamins and lactose suga		Theoretical-practical	Test
9	2	enzymes and salts		Theoretical-practical	Test
10	2	Microorganisms in milk		Theoretical-practical	Discussion
11	2	secretion of milk		Theoretical-practical	Discussion
12	2	Milk treatment in treatment		Theoretical-practical	Discussion
13	2	Dairy production		Theoretical-practical	Discussion
14	2	Milk fermentation industry		Theoretical-practical	Discussion
15	2	Incidental dairy products		Theoretical-practical	Discussion

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12-Learning and Teaching Resources

Required textbooks (curricular books any)	Principles of Dairy Manufacturing, edited by Dr. Helan Hammadi Tikriti and Khaled Mohammed Al-Khal
Main references (sources)	Al-Shabibi , M. M. A. , J. Tobias , S. Al-Fayadh , M. H. 1975. M . Sc. Thesis , University of Baghdad Iraq . L. Tuckey , and E. Langner . 1964. J. Dairy Sci. 47 : 259.

Recommended books and references (scientific journals, reports…)	Principles of Dairy Manufacturing, edited by Dr. Helan Hammadi Tikriti and Khaled Mohammed Al-Khal
Electronic References, Websites	https://en.wikipedia.org/wiki/Analytical_chemistry

Course Description Form

1Course Name: Food microbiology

2-Course Code: FHN23013

3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Dr. Ali R. Mulakhudair
Email:

8–Course Objectives

1. Demonstrate an understanding of the structural similarities and differences among microbes and the unique structure/function relationships of prokaryotic cells. 2. Comprehend the fundamentals of dairy microbiology. 3. Appreciate the diversity of dairy microorganisms and microbial communities in milk and milk products and recognize how microorganisms solve the fundamental problems their environments present. 4. Recognize how the underlying principles of epidemiology of disease and	• ….. • ….. • …..

pathogenicity of in milk and milk products. -	

9–Teaching and Learning Strategies

Strategy	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

10–Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	duction to the microb		Theoretical-practical	Test
2	2	portance of Microbes relationship with fo		Theoretical-practical	Test
3		d contamination by m nd source of contamir		Theoretical-practical	Test
4	2	nsic Parameters of Fo Affect Microbial Gro		Theoretical-practical	Test
5	2	insic Parameters of Fo Affect Microbial Gro		Theoretical-practical	Test
6	2	at Microbiology and S		Theoretical-practical	Test
7	2	Mid-term Exam		Theoretical-practical	Test
8	2	ultry meat Microbiolo Spoilage		Theoretical-practical	Test
9	2	and fish products mic and spoilage		Theoretical-practical	Test

10	2	etables and vegetable microbiology and spo		Theoretical-practical	Discussion
11	2	Fruits and fruit produ microbiology and spo		Theoretical-practical	Discussion
12	2	Cereals and cereal pro microbiology and spo		Theoretical-practical	Discussion
13	2	s, oilseeds, and dried microbiology and spo		Theoretical-practical	discussion
14	2	Milk and dairy produ microbiology and spo		Theoretical-practical	Discussion
15	2	Milk and dairy produ microbiology and spo		Theoretical-practical	Discussion

11--Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12-Learning and Teaching Resources

Required textbooks (curricular books any)	7th Edition of Analytical Chemistry Fundamentals of Analytical Chemistry Principles and Practice of Analytical Chemistry
Main references (sources)	Modern Analytical Chemistry.
Recommended books and references (scientific journals, reports…)	7th Edition of Analytical Chemistry Fundamentals of Analytical Chemistry Principles and Practice of Analytical Chemistry
Electronic References, Websites	https://en.wikipedia.org/wiki/Analytical_chemistry

Course Description Form

1-Course Name: Food safety and Hygiene;
2-Course Code: FHN23017
3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Prof. Dr. Ali R. Mulakhudair
Email:

8-Course Objectives

1. Demonstrate an understanding of food safety and hygiene 2. Comprehend the fundamentals of food safety and its importance . 3. Appreciate the diversity terminology used to describe food safety and hygiene 4. Recognize how the underlying principles of food safety control and food storage -	• ..... • ..... • .....

9-Teaching and Learning Strategies

Strategy	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

10-Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Mutual ecognition of tudents and urriculum that ill be taught er seme ttendance ecognition r nd o bligations		Theoretical-practic	test

2	2	Historical aspect afe food produc		Theoretical-practic	test
3		The system of f afety manageme		Theoretical-practic	test
4	2	ystem of Ha Analysis Critical Cont oint (HAC rinciples HACCP and CC		Theoretical-practic	test
5	2	Basic Principles ood Sa ccording to World He Organization		Theoretical-practic	test
6	2	The main cause ood disea icrobiological, hemical hysical ri ontamination, c ontamination, rimary econdary f ollution		Theoretical-practic	test
7	2	Mid-term Exam		Theoretical-practic	test
8	2	Unsafe food for health		Theoretical-practic	test
9	2	Food Sa Control		Theoretical-practic	test
10	2	Management food produ Good Produc Practices, G Agricultural Practices, G Hygienic Practi		Theoretical-practic	discussion
11	2	The importance of sanitation, sterilization, disinfection, deratization in Food Safety		Theoretical-practic	discussion
12	2	Food hygiene Cooling of fo Food process Packaging,		Theoretical-practic	discussion

		Labeling, Declaration, Transportation.			
13	2	Personal hyg of staff, hyg facilities w food is produ and processed		Theoretical-practic	discussion
14	2	Food storage		Theoretical-practic	discussion
15	2	Food storage		Theoretical-practic	discussion

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical fir al test

12-Learning and Teaching Resources

Required textbooks (curricu books, if any)	Riedel S, & Hobden J.A., & Miller S, & Morse S.A., & Mietzner T.A., & Detrick B & Mitchell T.G., & Sakanari J.A., & Hotez P, & Mejia R(Eds.), (2019). *Jawetz, Melnick & Adelberg's Medical Microbiology, 28e*. McGraw H ll. https://accesspharmacy.mhmedical.com/content.aspx?bookid=2629&sectionid=217768134
Main references (sources)	*Robinson, Richard K.. "Dairy microbiology handbook: the microbiology of milk and products." (2005).*
Recommended books and references (scientific journals, reports…)	Riedel S, & Hobden J.A., & Miller S, & Morse S.A., & Mietzner T.A., & Detrick B, & Mitc T.G., & Sakanari J.A., & Hotez P, & Mejia R(Eds.), (2019). *Jawetz, Melnick, & Adelbe Medical Microbiology, 28e*. McGraw H https://accesspharmacy.mhmedical.com/content.aspx?bookid=2629&sectionid=217768134
Electronic References, Website	

Course Description Form

1-Course Name: Organic chemistry

2-Course Code: FHN1207

3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Rana khadim Ridha
Email:

8-Course Objectives

-	• ….. • ….. • …..

9-Teaching and Learning Strategies

Strategy	1- Lecture method and the use of the interactive whiteboard 2- Explanation and clarification Providing students with the basics and additional topics related to the outputs of chemical thinking and analysis organic. 3- Forming discussion groups during lectures to discuss organic chemistry topics that require thinking and analysis. 4- Asking students, a set of reflective questions during the lectures, such as what, how, when, and why for specific topics Giving students homework that requires self-explanations in causal ways

10-Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	General principles organic chemistry		Theoretical-practical	test
2	2	Saturated alip hydrocarbons.		Theoretical-practical	test
3		Aliphatic compounds.		Theoretical-practical	test
4	2	Alkanes.		Theoretical-practical	test
5	2	Alkenes.		Theoretical-practical	test

6	2	**Seminar**		Theoretical-practical	test
7	2	Alkyne.		Theoretical-practical	test
8	2	**Mid-term exam**		Theoretical-practical	test
9	2	Ethers and Alcohols.		Theoretical-practical	test
10	2	**Seminar**		Theoretical-practical	discussion
11	2	Simple carbonyl compounds such as aldehydes and ketone		Theoretical-practical	discussion
12	2	Carboxylic acids.		Theoretical-practical	discussion
13	2	**Seminar**		Theoretical-practical	discussion
14	2	Amines and a compounds.		Theoretical-practical	discussion
15	2	**Final exam**		Theoretical-practical	discussion

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12-Learning and Teaching Resources

Required textbooks (curricular books any)	7th Edition of Analytical Chemistry Fundamentals of Analytical Chemistry Principles and Practice of Analytical Chemistry
Main references (sources)	Modern Analytical Chemistry.
Recommended books and references (scientific journals, reports…)	7th Edition of Analytical Chemistry Fundamentals of Analytical Chemistry Principles and Practice of Analytical Chemistry
Electronic References, Websites	https://en.wikipedia.org/wiki/Analytical_chemistry

Course Description Form

1-Course Name: Pathogenic microbiology

2-Course Code: FHN24018

3-Semester / Year: first

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Rana khadim Ridha
Email:

8–Course Objectives

1. Provide a comprehensive theoretical knowledge of medical microbiology including the spread of microorganisms, disease causation, diagnosis and/or treatment of pathogens of major significance to public health and advanced practical training in this diverse field 2. The increasing incidence of microbial infections worldwide is being compounded by the rapid evolution of drug-resistant variants and opportunistic infections by other organisms - 3. The program places particular emphasis on practical aspects of the subjects most relevant to current clinical laboratory practice and research.	• ..... • ..... • .....

9–Teaching and Learning Strategies

Strategy	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' pa while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, considering types of simple experiments involving some sampling activities that are interesting to the students.

10–Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method
1	2	Introduction to pathogenic microbiology		Theoretical-practical

2	2	Classification of pathogenic microbes		Theoretical-practical
3		Pathogenesis of Bacterial Infection		Theoretical-practical
4	2	Normal human microflora		Theoretical-practical
5	2	Spore-Forming Gram-Posi Bacilli: *Bacillus* and *Clostridium* Specie		Theoretical-practical
6	2	The Staphylococci		Theoretical-practical
7	2	Mid-term Exam		Theoretical-practical
8	2	The Streptococci, Enterococci, and Rel Genera		Theoretical-practical
9	2	Enteric Gram-Negative R (Enterobacteriaceae)		Theoretical-practical
10	2	*Pseudomonas*, *Acinetobacter*, *Burkholde* and *Stenotrophomonas*		Theoretical-practical
11	2	*Vibrio, Aeromonas, Campylobacter, and Helicobacter*		Theoretical-practical
12	2	Antimicrobial Chemotherapy		Theoretical-practical
13	2	Pathogenesis and Control of Viral Disea		Theoretical-practical
14	2	Medical Mycology		Theoretical-practical
15	2	and parasitology		Theoretical-practical

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical fina tes

12-Learning and Teaching Resources

Required textbooks (curricular books, if any)	Riedel S, & Hobden J.A., & Miller S, & Morse S.A., & Mitchell T.G., & Sakanari J.A., & Hotez P, & Mej a R(Ed

Main references (sources)	Jawetz, Melnick, & Adelberg's Medical Microb https://accesspharmacy.mhmedical.com/content.as x?boo
Recommended books and references (scientific journals, reports…)	Riedel S, & Hobden J.A., & Miller S, & Morse S.A., & Mitchell T.G., & Sakanari J.A., & Hotez P, & Mej a R(Ed
Electronic References, Websites	https://en.wikipedia.org/wiki/Analyti

Course Description Form

1-Course Name: Monitoring of food quality

2-Course Code: FHN36028

3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Asst.Prof. Dr. Ali R. Mulakhudair

Email:

8–Course Objectives

1. Demonstrate an understanding of food safety and hygiene 2. Comprehend the fundamentals of food safety and its importance . 3. Appreciate the diversity terminology used to describe food safety and hygiene 4. Recognize how the underlying principles of food safety control and food storage -	• ….. • ….. • …..

9–Teaching and Learning Strategies

Strategy	1. Demonstrate an understanding of food safety and hygiene

	2. Comprehend the fundamentals of food safety and its importance . 3. Appreciate the diversity terminology used to describe food safety and hygiene 4. Recognize how the underlying principles of food safety control and food storage

10-Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Terms And Definitions food quality		Theoretical-practical	test
2	2	Food Sampling		Theoretical-practical	test
3		Specifications raw materials		Theoretical-practical	test
4	2	System of Haz Analysis Critical Cont Point (HAC principles HACCP and CC		Theoretical-practical	test
5	2	Basic Principles Food Sa according to World He Organization		Theoretical-practical	test
6	2	The main cause food disea microbiological, chemical physical ri contamination, cross contamination, primary secondary f pollution		Theoretical-practical	test
7	2	Mid-term Exam		Theoretical-practical	test
8	2	Unsafe food for health		Theoretical-practical	test

9	2	Food Sa Control		Theoretical-practical	test
10	2	Management food produ Good Produc Practices, G Agricultural Practices, G Hygienic Practic		Theoretical-practical	discussion
11	2	The importance of sanitation, sterilization, disinfection, deratization in Food Safety		Theoretical-practical	discussion
12	2	Food hygiene Cooling of fo Food process Packaging, Labeling, Declaration, Transportation.		Theoretical-practical	discussion
13	2	Personal hygien staff, hyg facilities wh food is produ and processed		Theoretical-practical	discussion
14	2	Food storage		Theoretical-practical	discussion
15	2	Food storage		Theoretical-practical	discussion

11-

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12-Learning and Teaching Resources

Required textbooks (curricu books, if any)	Riedel S, & Hobden J.A., & Miller S, & Morse S.A., & Mietzner T.A., & Detrick F Mitchell T.G., & Sakanari J.A., & Hotez P, & Mejia R(Eds.), (2019). *Jawetz, Melnic Adelberg's Medical Microbiology, 28e*. McGraw https://accesspharmacy.mhmedical.com/content.aspx?bookid=2629&sectionid=217768
Main references (sources)	*Robinson, Richard K.. "Dairy microbiology handbook: the microbiology of milk and products." (2005).*
Recommended books and references (scientific journals, reports…)	Riedel S, & Hobden J.A., & Miller S, & Morse S.A., & Mietzner T.A., & Detrick F Mitchell T.G., & Sakanari J.A., & Hotez P, & Mejia R(Eds.), (2019). *Jawetz, Melnic Adelberg's Medical Microbiology, 28e*. McGraw https://accesspharmacy.mhmedical.com/content.aspx?bookid=2629&sectionid=217768
Electronic References, Websites	

Course Description Form

1-Course Name: Nutrition and genetics

2-Course Code: FHN35025

3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Dr. Rabab Jawad Hassen Al Hassany
Email:

8–Course Objectives

- The student learns about the importance of analytical chemistry and its types. - The student learns the methods of finding concentrations of chemicals and the types of chemical titration. - The student learns the basic principles of quantitative and qualitative analysis methods in analytical chemistry.	• ..... • ..... • .....

9–Teaching and Learning Strategies

Strategy	5- Lectures 6- Discussion 7- Brainstorming Problem solving 8- Practical presentations& Simulation Method 9- Lab works(Practical in computer Lab 10- Projects Self-learning 11-Cooperative Learning.

10−Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	**Introduction**		Theoretical-practical	test
2	2	**DNA and R structure**		Theoretical-practical	test
3		**Chromosome structure**		Theoretical-practical	test
4	2	**nutrigenetics**		Theoretical-practical	test
5	2	**Effect of the nutrit on genome**		Theoretical-practical	test
6	2	**Effect of the nutrit on Epigenetics**		Theoretical-practical	test
7	2	**Effect of the nutrit on histone**		Theoretical-practical	test
8	2	**Effect of carbohydrate genome**		Theoretical-practical	test
9	2	**Examination1**		Theoretical-practical	test
10	2	**Effect of the porti on genome**		Theoretical-practical	discussion
11	2	**Effect of the fat on genome**		Theoretical-practical	discussion
12	2	**Food Mutagens**		Theoretical-practical	discussion
13	2	**Food carcinogenic**		Theoretical-practical	discussion

14	2	**Effect of the genc on select food**		Theoretical-practical	discussion
15	2	**Examination2**		Theoretical-practical	discussion

11–Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12–Learning and Teaching Resources

Required textbooks (curricular books any)	**MOLECULAR BASIS OF NUTRITION AND AGING A Volume in the Molecular Nutrition Series MAR MALAVOLTA(2010)**
Main references (sources)	**NUTRIGENETICS.2010الخفاجي محمود زهرة**
Recommended books and references (scientific journals, reports…)	**MOLECULAR BASIS OF NUTRITION AND AGING A Volume in the Molecular Nutrition Series MAR MALAVOLTA(2010)**
Electronic References, Websites	https://en.wikipedia.org/wiki/Analytical_chemistry

Course Description Form

1-Course Name: Recycling and processing food factory waste

2-Course Code: UoB12345

3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Dr.haneen Abdul Ameer Lateef
Email:

8–Course Objectives

1- Reducing environmental pollution: The use of materials again reduces the resulting waste that leads to pollution of the globe, and thus reduces environmental pollution in a direct way. 2- Reducing marine pollution: by reducing the liquid, solid and gaseous industrial waste that factories and individuals dispose of towards the seas, oceans and rivers, it reduces the exposure of these water bodies to pollution, thus preserving the life of the organisms that live in them and increasing the opportunity to use the water of rivers and streams as a source of drinking water. . 3- Reducing air pollution: by reducing the gaseous emissions that industries produce daily by recycling these gases in various ways, and thus reduces air pollution and maintains the main air composition as it is, thus reducing human exposure to diseases that result from that pollution, especially materials toxic. 4- Achieving sustainability: Reducing the use of raw materials and the factories' need for them from nature. This leads to ensuring the share of future generations of those natural materials, and thus directly achieving the concept of sustainable development. - 5- Reducing the required energy: Reusing various resources as energy sources leads to a reduction in the amount of energy used.	• ..... • ..... • .....

9–Teaching and Learning Strategies

Strategy	The main strategy that will be adopted in delivering this module is encourage students' participation in the exercises, while at the same ti refining and expanding their critical thinking skills. This will be achiev through classes, interactive tutorials and by considering types of sim experiments involving some sampling activities that are interesting to t students

10−Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	An introduction to f factory waste methods of recycling		Theoretical-practical	test
2	2	Dangers arising from accumulation of f processing waste		Theoretical-practical	test
3		Benefit from f processing waste		Theoretical-practical	test
4	2	Types of food proces waste		Theoretical-practical	test
5	2	Recycling and treatn of dairy industry wast		Theoretical-practical	test
6	2	By-products of the d industry		Theoretical-practical	test
7	2	Mid-term Exam		Theoretical-practical	test
8	2	Whey waste resul from the manufactur cheese		Theoretical-practical	test
9	2	Milk churning residue		Theoretical-practical	test
10	2	Recycling and treatn of waste resulting f the processing vegetables and fruits		Theoretical-practical	discussion
11	2	Recycling and treatment of waste resulting from grain processing		Theoretical-practical	discussion
12	2	Recycling and treatn of waste resulting f the manufacture of su		Theoretical-practical	discussion
13	2	Recycling and treatn of waste resulting f meat slaughterhouses		Theoretical-practical	discussion
14	2	Recycling and treatn of waste resulting f		Theoretical-practical	discussion

		fish processing			
15	2	The use of f processing waste in production of biofuels		Theoretical-practical	discussion

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12-Learning and Teaching Resources

Required textbooks (curricular books any)	Residues from the dairy industry and soybean milk, their uses and health bene by Dr. Nadia Abdel Majeed Abu Zaid 2011
Main references (sources)	International Conference on: "New Role for the World Sugar Economy Changed Political and Economic Environment 2012"
Recommended books and references (scientific journals, reports…)	Residues from the dairy industry and soybean milk, their uses and health bene by Dr. Nadia Abdel Majeed Abu Zaid 2011
Electronic References, Websites	

Course Description Form

1-Course Name: Recycling and processing food factory waste

2-Course Code: UoB12345

3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Dr.haneen Abdul Ameer Lateef

Email:

8–Course Objectives

1- Reducing environmental pollution: The use of materials again reduces the resulting waste that leads to pollution of the globe, and thus reduces environmental pollution in a direct way. 2- Reducing marine pollution: by reducing the liquid, solid and gaseous industrial waste that factories and individuals dispose of towards the seas, oceans and rivers, it reduces the exposure of these water bodies to pollution, thus preserving the life of the organisms that live in them and increasing the opportunity to use the water of rivers and streams as a source of drinking water. . 3- Reducing air pollution: by reducing the gaseous emissions that industries produce daily by recycling these gases in various ways, and thus reduces air pollution and maintains the main air composition as it is, thus reducing human exposure to diseases that result from that pollution, especially materials toxic. 4- Achieving sustainability: Reducing the use of raw materials and the factories' need for them from nature. This leads to ensuring the share of future generations of those natural materials, and thus directly achieving the concept of sustainable development. - 5- Reducing the required energy: Reusing various resources as energy sources leads to a reduction in the amount of energy used.	• ..... • ..... • .....

9–Teaching and Learning Strategies

Strategy	The main strategy that will be adopted in delivering this module is encourage students' participation in the exercises, while at the same ti refining and expanding their critical thinking skills. This will be achiev through classes, interactive tutorials and by considering types of sim

	experiments involving some sampling activities that are interesting to t students

10−Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	An introduction to f factory waste methods of recycling		Theoretical-practical	test
2	2	Dangers arising from accumulation of f processing waste		Theoretical-practical	test
3		Benefit from f processing waste		Theoretical-practical	test
4	2	Types of food proces waste		Theoretical-practical	test
5	2	Recycling and treatn of dairy industry wast		Theoretical-practical	test
6	2	By-products of the d industry		Theoretical-practical	test
7	2	Mid-term Exam		Theoretical-practical	test
8	2	Whey waste resul from the manufactur cheese		Theoretical-practical	test
9	2	Milk churning residue		Theoretical-practical	test
10	2	Recycling and treatn of waste resulting f the processing vegetables and fruits		Theoretical-practical	discussion
11	2	Recycling and treatment of waste resulting from grain processing		Theoretical-practical	discussion
12	2	Recycling and treatn of waste resulting f the manufacture of su		Theoretical-practical	discussion
13	2	Recycling and treatn of waste resulting f meat slaughterhouses		Theoretical-practical	discussion

14	2	Recycling and treatn of waste resulting f fish processing		Theoretical-practical	discussion
15	2	The use of f processing waste in production of biofuels		Theoretical-practical	discussion

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12-Learning and Teaching Resources

Required textbooks (curricular books any)	Residues from the dairy industry and soybean milk, their uses and health bene by Dr. Nadia Abdel Majeed Abu Zaid 2011
Main references (sources)	International Conference on: "New Role for the World Sugar Economy Changed Political and Economic Environment 2012"
Recommended books and references (scientific journals, reports…)	Residues from the dairy industry and soybean milk, their uses and health bene by Dr. Nadia Abdel Majeed Abu Zaid 2011
Electronic References, Websites	

Course Description Form

1-Course Name: Emerging technologies in food processing

2-Course Code: FHN48039

3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Dr.haneen Abdul Ameer Lateef

Email:

8–Course Objectives

1-One of the main advantages of food processing technologies 2-To understand who can help extend the shelf life of food products. 3-To Know what means that food can be stored for more extended periods without spoiling - 4-To figure food processing can also help improve food safety by reducing the risk of contamination	• ..... • ..... • .....

9–Teaching and Learning Strategies

Strategy	The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

10–Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	Introduction :High Press Processing of Foods		Theoretical-practical	test
2	2	Pulsed Electric F Processing for Food		Theoretical-practical	test
3		Other Non-ther Processing Techniq Developments in Osm Dehydration		Theoretical-practical	test
4	2	Non-thermal Processing Radio Frequency Elec Fields		Theoretical-practical	test
5	2	Application of Ultrasound		Theoretical-practical	test
6	2	Irradiation of Foods		Theoretical-practical	test

7	2	Mid-term Exam		Theoretical-practical	test
8	2	New Chemical Biochemical Hurdles		Theoretical-practical	test
9	2	Recent Developments Microwave Heating		Theoretical-practical	test
10	2	Radio-Frequency Processi		Theoretical-practical	discussion
11	2	Ohmic Heating		Theoretical-practical	discussion
12	2	Combined Microw Vacuuum-drying		Theoretical-practical	discussion
13	2	Innovations in F Refrigeration: Vacuum Coo of Foods and High-Press Freezing		Theoretical-practical	discussion
14	2	Introduction Nanotechnology in Food Dairy Science		Theoretical-practical	discussion
15	2	3D printing f manufacturing		Theoretical-practical	discussion

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12-Learning and Teaching Resources

Required textbooks (curricular books any)	Residues from the dairy industry and soybean milk, their uses and health bene by Dr. Nadia Abdel Majeed Abu Zaid 2011
Main references (sources)	International Conference on: "New Role for the World Sugar Economy Changed Political and Economic Environment 2012"
Recommended books and references (scientific journals, reports…)	Residues from the dairy industry and soybean milk, their uses and health bene by Dr. Nadia Abdel Majeed Abu Zaid 2011
Electronic References, Websites	

Course Description Form

1-Course Name: Food Poisoning

2-Course Code: FHN48038

3-Semester / Year:second

4-Description Preparation Date:٣٠ /4/٢٠٢٤

5-Available Attendance Forms: class

6-Number of Credit Hours (Total) / Number of Units (Total):150/6

7-Course administrator's name (mention all, if more than one name)

Name: Asst.Prof. Dr. Ali R. Mulakhudair

Email:

8–Course Objectives

1. Define the microbial toxicology
2. Familiar with microorganisms produced toxins
3. Differentiate between chemical toxins and biological toxins
4. Compare between Endotoxins and Exotoxins
5. Diagnose the symptoms of bacterial toxins and mycotoxins
6. list the types of bacterial and mycotoxins
7. write briefly the structure of any microbial toxin
8. Discuss the mechanism action of any toxin
9. Describe the detoxification methods of the microbial toxins

- List the method used for assaying the bacterial and myco-toxins

- .....
- .....
- .....

9–Teaching and Learning Strategies

Strategy	Type something like: The main strategy that will be adopted in delivering this module is to encourage students' participation in the exercises, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive tutorials and by considering types of simple experiments involving some sampling activities that are interesting to the students.

10-Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	2	An overview to micro toxins in food		Theoretical-practical	test
2	2	Part 1: Food poisoning toxins		Theoretical-practical	test
3		Staphylococcal f positioning		Theoretical-practical	test
4	2	Botulism food positioning		Theoretical-practical	test
5	2	Perfringens food positionir		Theoretical-practical	test
6	2	*Escheichia coli* f positioning		Theoretical-practical	test
7	2	Mid-term Exam		Theoretical-practical	test
8	2	*Bacillus cereus* f positioning		Theoretical-practical	test
9	2	Part 2: Food poisoning infections		Theoretical-practical	test
10	2	Salmonellosis		Theoretical-practical	discussion
11	2	Campylobacteriosis		Theoretical-practical	discussion
12	2	Virbriosis		Theoretical-practical	discussion
13	2	Yersinosis		Theoretical-practical	discussion

14	2	Food poisoning Mycotoxins		Theoretical-practical	discussion
15	2			Theoretical-practical	discussion

11-Course Evaluation

30therotical test 10 practical test 10 report و 35 therotical final test 15 practical final test

12-Learning and Teaching Resources

Required textbooks (curricular books any)	1- Microbial Toxins: Structure and Their Type Paperback – April 17, 2011 by Rajeeva Gaur (Author), Soni Tiwari (Author), Ranjan Singh (Author)
Main references (sources)	1- Microbial Toxins: Current Research and Future Trends by Thomas Proft (Editor), Publisher: Caister Academic Press (April 14, 2009)
Recommended books and references (scientific journals, reports…)	1- Microbial Toxins: Structure and Their Type Paperback – April 17, 2011 by Rajeeva Gaur (Author), Soni Tiwari (Author), Ranjan Singh (Author)
Electronic References, Websites	