

Course Description of the Principles of microbiology

1.Course Name					
Principles of microbiology					
2.Course Code					
PRMB205					
3.Term / Year					
First Semester 2023–2024					
4.Description Preparation Date:					
1/2/2024					
5.A. Available Attendance Forms					
learning in presence					
6.Number of Credit Hours (Total of Units					
2 theoretical + 3 practical/ 3.5 units					
7.Course administrator's name (mention all, if more than one name)					
Dr. Hanan Waleed Kasim Agwaan Alaa Shamil Fakhri Al-Allaf					
8.Course Objectives					
1– Classification of microorganisms that infect field animals 2– Identify the different microorganisms that infect field animals 3– Knowledge of diseases caused by microorganisms in large animals					
9.Teaching and Learning Strategies					
<ul style="list-style-type: none"> – Methods of using appropriate disinfectants to disinfect animal fields – The use of various vaccines to prevent infection with microorganisms (germs, viruses) – Diagnosis of microorganisms under the microscope 					
10.Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject Name	Learning method	Evaluation Method
1	2 Theoretical	A1: the student gets to know Microbiology and the stages of its development	Definition of microbiology and the stages of its development	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	B5: The student learns about the microscope and its uses	The microscope and its uses	Laboratory work.	Exams , assignment, discussions.

2	2 Theoretical	A2: The student understands morphological properties of microorganisms	Morphological properties of microorganisms	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	B 6: The student understands the types of agricultural media	Cultivation media	Laboratory work.	Exams , assignment, discussions.
3	2 Theoretical	C1: Explains to the student what it is Agricultural media	Microbial stains and bacterial anatomy	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	B7: The student learns methods of Sterilization	Sterilization methods	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
4	2 Theoretical	2C: Explains to the student what it is External structures of bacteria	External structures of bacteria	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	A6: The student learns about doing With simple staining	simple staining	Laboratory work.	Exams , assignment, discussions.
5	2 Theoretical	B1: Student film What are the internal structures of bacteria	Internal structures of bacteria	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.

	3 Practical	B8: The student knows how Staining with gram dye	Staining with gram dye	Laboratory work.	Exams , assignment, discussions.
6	2 Theoretical	A3: The student gets to know non-essential parts of bacteria scientific trip	Non-essential parts of bacteria	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	A7: The student recognizes Staining of Bacterial Spores	Staining of Bacterial Spores	Laboratory work.	Exams , assignment, discussions.
7	2 Theoretical	C3: The student explains how the bacteria growth	Bacterial growth	The student writes a report About what he saw in Scientific trip	Exams , assignment, discussions.
	3 Practical	A8: The student learns about negative staining	Negative staining	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
8	2 Theoretical	B2: Explains to the student what are bacteria nutritional agar	Bacteria nutritional agar	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	C7: Shows the student how Bacteria move	Study of bacterial movement Field practice	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
9	2 Theoretical	C4: Explains to the student the methods Used in bacterial growth	Methods used in bacterial growth	Auditory styles, writing style on the board, direct dialogue	Exams , assignment, discussions.

				style.	
	3 Practical	C8: Explains to the student what mold is	Study of mold	visit to the fields	Exams , assignment, discussions.
10	2 Theoretical	B3: The student understands the methods for quantitatively measuring bacterial growth	Methods for quantitative measurement of bacterial growth	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	A9: The student understands what yeasts are	Study of yeasts	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
11	2 Theoretical	C5: Explains to the student the Chemicals factors affecting bacterial growth	Chemical factors affecting bacterial growth	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	C9: Shows the student direct counting for bacteria	direct bacterial count	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
12	2 Theoretical	A4: Explains to the student Physical factors effects on bacterial growth	Physical factors affecting bacterial growth	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	B9: The student learns about counting With standard	Counting in standard dishes	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.

13	2 Theoretical	B4: The student learns about viruses	Viruses	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	C10: The student explains what water tests mycobiology	Water tests mycobiology	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
14	2 Theoretical	A5: The student understands how The virus multiplies	The virus multiplies	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	C11: Explain to the student what is the effect of Physical factors on bacteria	Study the effect of physical factors on bacteria	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
15	2 Theoretical	C6: Explains to the student the methods of cultivating viruses	Methods of cultivating viruses Field practice	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.
	3 Practical	B10: The student learns about diagnostic tests for bacteria/allergy testing	Diagnostic tests for bacteria/allergy testing	Auditory styles, writing style on the board, direct dialogue style.	Exams , assignment, discussions.

11.Course Evaluation

No.	evaluation methods	Calendar Appointment (Week)	Score	Relative Weight%
1	Midterm test (theoretical and practical)	Week 9	25 Theoretical + 15 Practical	40 %
2	Final Practical Test	Practical Exams Week	20	20%

3	Final theoretical test	Theoretical Exam Week	40	40 %
4	Total		100	100%
12.Learning and Teaching Resources				
Required textbooks (methodology if any)		Principles of Microbiology, written by Dr. Fayez Aziz A Ani and Dr.. Amin Suleiman Badawi		
Key References (Sources)				
Recommended supporting books and references (scientific journals, reports...)				
E-References , Websites				



Alaa Shamil Fakhri Al-Allaf

Instructor of practical subject



Dr. Hanan waleed kasim Agwaan

Instructor of theoretical subject

CS Scanned with CamScanner



Head Of Department




Chairperson of the Scientific Committee

CS Scanned with CamScanner