

## Course Description Form

1. Course Name:											
Microbiology I											
2. Course Code:											
ClMm217											
3. Semester / Year:											
1/2											
4. Description Preparation Date:											
29/2/2024											
5. Available Attendance Forms:											
In person attendance											
6. Number of Credit Hours (Total) / Number of Units (Total)											
5/3											
7. Course administrator's name (mention all, if more than one name)											
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">prof Dr. Maysoon Abdul-zahra</td> <td style="width: 50%;">maysoona.merdaw@copharm.uobaghdad.edu.iq</td> </tr> <tr> <td>assiss.prof. Zainab Majeed Hashim</td> <td>zainab.atyia@copharm.uobaghdad.edu.iq</td> </tr> <tr> <td>Assiss lecturer Mohammad Hasan Muhammad</td> <td>muhammad.h@copharm.uobaghdad.edu.iq</td> </tr> <tr> <td>assiss lecturer: Hiba Haidar Kadhum</td> <td>heba.h@copharm.uobaghdad.edu.iq</td> </tr> <tr> <td>Sarah Nabil Abdul-Waduod</td> <td>sarah.nabil@copharm.uobaghdad.edu.iq</td> </tr> </table>		prof Dr. Maysoon Abdul-zahra	maysoona.merdaw@copharm.uobaghdad.edu.iq	assiss.prof. Zainab Majeed Hashim	zainab.atyia@copharm.uobaghdad.edu.iq	Assiss lecturer Mohammad Hasan Muhammad	muhammad.h@copharm.uobaghdad.edu.iq	assiss lecturer: Hiba Haidar Kadhum	heba.h@copharm.uobaghdad.edu.iq	Sarah Nabil Abdul-Waduod	sarah.nabil@copharm.uobaghdad.edu.iq
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8. Course Objectives											
<b>Course Objectives</b>	<ul style="list-style-type: none"> <li>Understanding bacteria in terms of their presence in the environment and their nutritional requirements for growth and reproduction</li> <li>Methods of transmission of bacteria and the diseases they cause</li> <li>Treatments and resistance to antibiotics and environmental factors</li> </ul>										
9. Teaching and Learning Strategies											
<b>Strategy</b>	Lectures Tutorials Google class room Researches										

## 10. Course Structure

Week	Hours	Required Learning Outcomes	Unit	Learning method	Evaluation method
1	3	The history of microbiology and its importance Anatomy of bacteria, surface appendages, capsule, Bacterial cell wall G+ve & G-ve Cytoplasmic membrane Practical: shapes of bacteria	Introduction to microbiology	Lectures, Discussions, and Reports	Exam and classroom activities
2	3	Physiology of bacterial cell, bacterial growth and bacterial requirement, bacterial growth curve Practical: staining of bacteria	Bacterial growth requirements	=	=
3	3	Genetics definition of nucleic acids. Genetic codes and types of mutations Methods of transferring genetic material, biotechnology Recombinant DNA Practical: Bacterial movement	Bacterial genetics	=	=
4	3	Bacterial sporulation Practical: staining of spores and its position	Sporulation	=	=
5	3	Sterilization: (chemical + physical methods). Practical: preparation and sterilization of media	Sterilization	=	=

6	3	Chemotherapy (antibiotics, etc.) Practical: isolation of bacterial colonies	Antibiotics	=	=
7	Mid-term examination				
8	3	Pseudomonas and Neisseria Practical: identification of bacterial colonies	Pseudomonas and Neisseria	=	=
9	3	Staphylococcus and Streptococcus Practical: biochemical reaction; oxidase and catalase test	Staphylococcus and Streptococcus bacteria	=	=
10	3	Bacillus bacteria and Vibrio cholera Practical: biochemical reaction; urease activity		=	=
11	3	Clostridium bacteria Practical: : bacterial reaction to citrate	Clostridium bacteria	=	=
12	3	Diphtheria bacteria, acne bacteria, and listeria practical: IMVEC test	Diphtheria bacteria, acne bacteria, and listeria	=	=
13	3	Enterobacteriaceae family Practical: identification of lactose fermenter and non-lactose fermenter bacteria	Enterobacteriaceae family	=	=
14	3	Infectious spirochete bacteria and salmonella Practical: identification of lactose fermenter and non-lactose fermenter bacteria	Infectious spirochete bacteria and salmonella	=	=
15	3	Tuberculosis and leprosy bacteria Practical: antibiotics sensitivity test	Tuberculosis and leprosy bacteria	=	=

#### 11. Course Evaluation

Mid-term examination (15 marks)	
Quiz and homework (5 marks)	
Practical work (20 marks)	
Final examination (60 marks)	
12. Learning and Teaching Resources	
Required textbooks (curricular books, if any)	Lippincotts illustrated review microbiology, 2nd ed. -A color Atlas of microbiology by Ronald John Olds -Jawetz, Melnick, & Adelberg's. Medical Microbiology 26th ed.
Main references (sources)	
Recommended books and references (scientific journals, reports...)	-Bailey & Scott's Diagnostic Microbiology 14th ed. -Hugo and Russell's Pharmaceutical Microbiology; 8th. ed.
Electronic References, Websites	