Course Description Form

1. Course Name:	
Microbiology I	
2. Course Code:	
MBN 203	
3. Semester / Year: Semester	
first semester / 2024/2025	
4. Description Preparation Date:	
5. Available Attendance Forms: Attendance	
2024\9\1	
6. Number of Credit Hours (Total) / Number of Units (Total)	
2 hr. theory+ 2 practical 60 hr \3 units	
7. Course administrator's name (mention all, if more than one name)	
Name: Maysam Ali Ameen Awadh Email : maysamawadh2@gmail.com	
8. Course Objectives	
Course Objectives	Cognitive objectives 1. Empowering the student to interact correctly according to proper medical principles with patients and medical staff to achieve the best healthcare service. 2. Providing the student with sufficient medical knowledge and enabling them to effectively convey it to patients through health education and awareness. 3. Enhancing the student's knowledge on how to measure appropriate drug doses for patients with chronic infections, taking into account the side effects of the medications. 4. Developing the student's skills in using disinfectants and antiseptics correctly to avoid negative side effects on patients' health. 5. Providing the student with comprehensive knowledge of the rules of bacterial infection and the mechanisms of transmission. 6. Equipping the student with the ability to provide medical advice on various sterilization methods in hospitals and homes to reduce infections and prevent contamination. Skill objectives 7. Developing the graduate's ability to perform microbial diagnosis in educational and diagnostic laboratories, laboratories affiliated with the Ministry of Health, private laboratories, and drug quality control laboratories. 8. Enabling the student to recognize the types of pathogenic

	bacteria, their various strains, and methods of diagnosing them. 9. Training the student to use appropriate antibiotics based on internationally followed bacterial sensitivity tests. 10. Developing the student's skills in recognizing the morphological and anatomical characteristics of pathogenic bacteria and using the latest diagnostic methods. 11. Enhancing the student's abilities to control the spread of bacterial infections and prevent epidemics. 12. Monitoring medical updates and health recommendations issued by reference authorities to limit the spread of infectious germs and control them. 13. Providing guidance and health awareness to the community, especially during seasons when infection rates increase, and using the best methods to limit the spread of epidemic diseases.

9. Teaching and Learning Strategies

Strategy	**Lectures**: To present basic information and theoretical concepts. **Group discussions**: To enhance critical thinking and effective participation among students. **Teamwork**: To develop collaboration skills and the practical application of concepts. **Evaluation methods:** • **Written tests**: to measure the theoretical understanding of concepts and terms. • Practical assessment (applied skills): through case studies or the execution of practical activities. • Participation in group discussions: to assess the level of interaction and critical understanding. • Brainstorming • Reports • The Quiz

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1.	2	Students acquire information in the field	Introduction and the historical development of microbiology.	Scientific references and use of the board,	monthly written and oral examinations and seminars

		of Diseases to the required level		And educational videos	
2.	2	Students acquire information in the field of Diseases to the required level	Sterilization and Disinfection:	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
3.	2	Students acquire information in the field of Diseases to the required level	Systematic bacteriology: Gram positive bacteria (G +ve cocci). Staphylococci Streptococci	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
4.	2	Students acquire information in the field of Diseases to the required level	Gram +ve bacilli Corynebacterium diphtheria, Bacillus	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
5.	2	Students acquire information in the field of Diseases to the required level	Gram negative cocci (gonococcal and meningococcal	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
6.	2	Students acquire information in the field of Diseases to the required level	Gram negative bacte (Enterobacterieace) *Eshershia c Klebsiella Prote Salmonella,Shigella,*	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
7.	2	Students acquire information in the field of Diseases to the	*Vibri Pseudomonas, Helibacter,*	Scientific references and use of the board, And	monthly written and oral examinations and seminars

		required level		educational videos	
8.	2	Students acquire information in the field of Diseases to the required level	*Bordetella, Pasteruella, Spirochaetes, Trponema*	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
9.	2	Students acquire information in the field of Diseases to the required level	First exam	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
10.	2	Students acquire information in the field of Diseases to the required level	Mycobacteria *tuberculosis*, pathogenesis, *Nocardia, Actinomycetes, Streptomyces*).	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
11.	2	Students acquire information in the field of Diseases to the required level	mycoses	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
12.	2	Students acquire information in the field of Diseases to the required level	Immunity	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
13.	2	Students acquire information in the field of Diseases to the required level	Immunity	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars

14.	2	Students acquire information in the field of Diseases to the required level	Nosocomial infection	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
15.	2	Students acquire information in the field of Diseases to the required level	Second exam	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars

11. Course Evaluation

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)

Main references (sources)	• Cowan, M. K., & Smith, H. (2019). *Microbiology: A systems approach* (5th ed.). McGraw-Hill Education. • Murray, P. R., Rosenthal, K. S., & Pfaller, M. A. (2016). *Medical microbiology* (9th ed.). Elsevier. • Black, J. G. (2019). *Microbiology: Principles and explorations* (9th ed.). Wiley. • Tortora, G. J., Funke, B. R., & Case, C. L. (2021). *Microbiology: An introduction* (13th ed.). Pearson. • Gladwin, M., & Trattler, W. (2020). *Clinical microbiology made ridiculously simple* (7th ed.). MedMaster. • H. P. J. (Ed.). (2019). *Atlas of clinical microbiology* (3rd ed.). Springer. • Goldsby, R. A., Kindt, T. J., Osborne, B. A., & Kuby, J. (2018). *Immunology: A short course* (8th ed.). Wiley.
Recommended books and referen (scientific journals, reports…)	**1. Journal of Clinical Microbiology**

	○ A distinguished scientific journal that publishes research related to clinical microbiology, including infectious diseases, their diagnosis and treatment. 2. Microbiology and Immunology ○ Journal provides in-depth research on microbiology, immunology and their relationship to human diseases. 3. Clinical Microbiology Reviews ○ She is interested in publishing scientific reviews on clinical microbiology and microbiology.The Lancet Infectious Diseases International medical focus on infectious diseases, inclu microbiology research and its relationship to clinical medicine
	1. World Health Organization (WHO) Reports ○ WHO reports covering the latest developments in infectious diseases and microbiology. 2. Centers for Disease Control and Prevention (CDC) Reports ○ Updated Reports from the U.S. Center for Disease Control and Prevention on Infectious Diseases, Prevention, and Epidemic Response. 3. National Institute of Allergy and Infectious Diseases (NIAID) Reports ○ Scientific reports and studies from the National Institute of Allergy and Infectious Diseases. Electronic references and websites: 1. PubMed ○ Medical database containing articles and scientific reviews on microbiology and clinical medicine. (https://pubmed.ncbi.nlm.nih.gov) 2. National Institutes of Health (NIH) ○ The official website of the National Institutes of Health in the United States contains scientific resources and research. (https://www.nih.gov) 3. ClinicalTrials.gov