1. Course Name:
Microbiology II
2. Course Code:
MBN 208
3. Semester / Year: second Semester
2024\2025
4. Description Preparation Date:
2025-1-30
5. Available Attendance Forms:
Attendance
6. Number of Credit Hours (Total) / Number of Units (Total)
2 hr. theory+ 2 practical 60 hours \ 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

Strategy	**First: Cognitive objectives** 1. Preparing the student to properly interact with patients and understand the correct medical foundations in dealing with the medical and specialized staff to ensure the best healthcare. 2. Enabling the student to comprehend medical information and effectively convey it to patients through health awareness and disease prevention. 3. Enabling the student to acquire the ability to perform microbial diagnosis in educational and diagnostic laboratories affiliated with the Ministry of Health, private laboratories, and quality control laboratories in pharmaceutical factories. 4. Providing the student with comprehensive knowledge about measuring appropriate drug doses for patients with chronic infections and determining the most suitable treatment, especially in cases that require medications with high side effects. 5. Enhancing the student's ability to raise health awareness about the use of sanitizers and disinfectants, and warning against improper use that could lead to health

	complications. 6. Providing medical advice on proper sterilization methods in hospitals and homes to prevent contamination and the spread of infections. 7. Equipping the student with the ability to identify and diagnose types of bacterial strains using the latest laboratory techniques. **Secondly: Specific skill objectivesIn the syllabus** 1. Developing the student's skill in understanding the rules of bacterial infection transmission and how to prevent it. 2. Applying drug sensitivity tests to select the most effective medication against pathogenic bacteria. 3. Enhancing the skill of distinguishing between different types of pathogenic bacteria from a morphological and anatomical perspective and using the best available diagnostic methods. 4. Empowering the student to take the necessary measures to control the spread of bacterial infections and prevent the outbreak of epidemics. 5. Following the latest health recommendations and guidelines issued by the top medical authorities to ensure effective handling of infectious diseases and limit their spread. 6. Providing health and advisory consultations to the public, especially during seasons when infectious diseases are prevalent, while explaining the best ways to prevent and control them.

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 Quis

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1.	2	Students acquire information in the field of parasitology to the required level	Introduction to medical parasitology	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
2.	2	Students acquire information in the field of parasitology to the required level	Introductionl protozoa Entamobia histolytica and E.co li Entamobia Hartman blantidium	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 parasitology to the required level	Haemoflagellates: Leshmania spp;. Trypanosome spp.	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 parasitology to the required level	Malarial parasites of human; Toxoplasma	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 parasitology to the required level	Helminthes: - Spp, Cestoda-top worms Taenia spp Echinococcus (Hydatid cyst).	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 parasitology to the required level	Introduction - Classification - Trematoda Blood flukes (Schistosoma	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 parasitology to the required level	Nematods:	Scientific references and use of the board, And educational videos	monthly written and oral examinations and seminars
8.	2	Students acquire information in the field of parasitology to the required level	Ascaris, Entrobius.	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 parasitology to the required level	Review before final 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 viruses to the required level	Introduction Comparison between viruses and bacteria and other microbes Classification of viruses; Replication	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 viruses to the required level	Herpes viridae,	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 viruses to the required level	Orthomyxo Paramyxo viruses	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	Rota viruses, Rubella	Scientific references and use of the board,	monthly written and oral

		viruses to the required level		And educational videos	examinations and seminars
14.	2	Students acquire information in the field of viruses to the required level	Hepato viruses	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 viruses to the required level	Retro viruses AIDS, Ebola, Viruses , covid viruses; SARS,	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 (methodology, 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 references (scientific journals, reports...)	Scientific journals • Revista de Microbiología Clínica A distinguished scientific journal that publishes research related to clinical microbiology, including infectious diseases, their diagnosis, and treatment. • Microbiología e Inmunología A journal that presents in-depth research on microbiology and immunology and their relation to human diseases. • Revisiones de Microbiología Clínica It is concerned with publishing scientific reviews on clinical microbiology and medical microbiology. • The Lancet Infectious Diseases An international medical journal focusing on infectious diseases, including microbiology research and its relation to clinical medicine.
Electronic References, Websites	• World Health Organization (WHO) Reports WHO reports covering the latest developments in the field of infectious diseases and microbiology. Centros para el Control y la Prevención de Enfermedades (CDC) Informes Updated reports from the • **Centers for Disease Control and Prevention** on infectious diseases, prevention, and pandemic response. • **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:** • PubMed A medical database containing articles and scientific reviews on microbiology and clinical medicine. (https://pubmed.ncbi.nlm.nih.gov) • Institutos Nacionales de Salud (NIH) The official website of the National Institutes of Health in the United States contains resources and scientific research. (https://www.nih.gov) • ClinicalTrials.gov

Course Development Plan	• **Periodic course review**: Evaluating the effectiveness of the course based on student feedback and assessment results. • Continuous training for faculty members: Organizing workshops to train teachers on modern teaching methods and the latest research in the field. • **Using electronic educational platforms** like Moodle or Blackboard to upload lectures, exercises, and other learning tools. • **Taking advantage of Massive Open Online Courses (MOOCs)** or websites like Coursera and EdX to expand knowledge. • **Continuous modification**: Based on reviews and evaluations, update the course content periodically to meet students' needs and keep up with scientific developments.