Course Specification
Student Version

Course Title:	**General Microbiology and Immunology**
Course Code:	MAC 211
Department:	**Basic Medical Sciences**
Program:	**Bachelor of Dentistry**
College:	Vision College, Riyadh
Institution:	Vision College, Riyadh
Revised:	July 2025

A. Course Identification

1. Credit hours: 3 (2+1+0)
2. Level/year at which this course is offered: Level 4/Year 2
3. Pre-requisites for this course (if any): None
4. Co-requisites for this course (if any): None

B. Teaching Methods

1	Lecture
2	Practical Session
3	Assignment evaluation

C. Course Description and Objectives

1. Course Description

This course covers principles of microbiology with emphasis or microorganisms and human disease. Topics include an overview of microbiology and aspects of medical microbiology, identification and control of pathogens, disease transmission, host resistance, and immunity.

The main purpose of this course is to provide the dental students with the knowledge and skills that would enable them to differentiate between different types of microorganisms and understand the role of microorganisms in the different diseases.

3. Course Objectives

By the end of this course, students should be able to:

- Understand the structure and function of the prokaryote and lower eukaryote as it pertains to their pathogenesis and susceptibility to antibacterial and antifungal agents.
- Demonstrate how the important bacterial and fungal pathogens are isolated.
- Understand the principles of sterilization and infection control.
- learn the mechanisms of genetic exchange between bacteria and their importance in the transfer of antibiotic resistance and virulence determinants.
- Enables students to acquire knowledge of the biology of important viral pathogens which can be applied to understanding the pathogenesis of these obligate intracellular parasites.
- Collaborate with colleagues demonstrating presentation skills, group dynamics and teamwork competencies.

D. Course Content

No.	List of Topics
1	Introduction to Microbiology
2	Bacterial Structure and Functions
3	Bacterial physiology and Genetics
4	Normal Flora
5	Antimicrobial substances, Sensitivity and Resistance
6	Pathogenesis of Microorganisms
7	Bacterial Pathogens and their Diseases I
8	Bacterial Pathogens and their Diseases II
9	Medical Mycology and actinomycetes
10	Medical Parasitology & Helminthes
11	Virology
12	Immunology

E. Assessment Tools

#	Assessment task	Percentage of Total Assessment Score
1	Written Exam (Quizzes)	10%
2	Assignment Evaluation	10%
3	Practical Evaluation / Exam	20%
4	Written Exam (Midterm exam)	20%
5	Written Exam (Final examination)	40%
	Total	**100%**

F. Learning Resources

Required Textbooks	**Practical handbook of microbiology 2nd (2009). Goldman, E. and Green, L. H. (eds) by Taylor & Francis Group, LLC. Medical Microbiology (2006). Kayser, F. H., Bienz, K. A., Eckert, J. and Zinkernagel, R. M. (eds) 2005** **Lippincott Illustrated Reviews: Microbiology (Lippincott Illustrated Reviews Series) Fourth, North American Edition by Cynthia Nau Cornelissen Ph.D. (Editor), Marcia Metzgar Hobbs PhD (Editor**
Essential Reference Material	**Review of medical Microbiology and Immunology 15 Edition Levinson W. (Eds) 2018**
Electronic Material	**The power point slides by the college website**