

Ministry of Higher Education and Scientific Research

Republic of Iraq

University: University Of Basrah

College: **Science**

Department : **Pathological Analyses**



Year : 2021-2022

Semester : First

SYLLABUS: < **GENERAL MICROBIOLOGY** >

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COURSE OVERVIEW

THIS COURSE DESCRIPTION PROVIDES A NECESSARY SUMMARY OF THE MOST IMPORTANT CHARACTERISTICS OF THE COURSE AND THE LEARNING OUTCOMES EXPECTED OF THE STUDENT TO ACHIEVE, DEMONSTRATING WHETHER HE HAS MADE MAXIMUM USE OF THE AVAILABLE LEARNING OPPORTUNITIES, AND THEY MUST BE LINKED WITH THE PROGRAM DESCRIPTION.

GOALS AND OBJECTIVES

- Introducing students to microorganisms
- Teaching students learn about microbiology including bacteria , fungi , viruses and parasites .
- Teaching students the Knowledge of types microorganism (beneficial and harmful)
- Introducing students the study of structures and taxonomy of microorganisms

TEXTBOOK AND READINGS

[1] Prescott Microbiology 5th ed.

COURSE ASSESSMENTS

The course grade (**4** points) will be based on the following elements:

	Points
Exams	85

Participation	10
Attendance	5
Assignments	100

COURSE DESCRIPTION AND ASSIGNMENT SCHEDULE

This **NO.** -credit hour course is 14 weeks long. You should invest **NO.** hours every week in this course.

WK	DATE	TOPIC	READING	ASSIGNMENT
1		<ul style="list-style-type: none"> - What is Microbiology? - Advantages of microbes - The importance of study the microbiology 		
2		<ul style="list-style-type: none"> - Spontaneous generation and Biogenesis - The Golden age of Microbiology - The Germ Theory of Disease - Koch's Postulates 		
3		<ul style="list-style-type: none"> - Microbial Taxonomy - Taxonomic Hierarchy - Phylogeny: The Study of Evolutionary Relationships of Living Organisms - Five-Kingdom System of Biological Classification - Differences Between Eukaryotic and Prokaryotic Cells - The Three Domain System - Scientific Nomenclature 		
4		<ul style="list-style-type: none"> Types of Microscope - Resolving power and Empty magnification - light microscope parts - Simple microscope - compound microscope - type of compound microscope - Electron microscopy - types of Electron Microscope 		
5				Assignment 1
6		<ul style="list-style-type: none"> - Bacterial Morphology and Structure - Bacterial ultra- structure 1- internal structure * Cytoplasmic structure * Cytoplasmic Membrane * cell wall 		
7		<ul style="list-style-type: none"> - External structure * Capsule * Flagella * Pili and fimbriae * Spore * inclusion bodies 		

8		bacterial nutrition *Bacterial Growth curve * lag phase Log phase* *stationary phase * decline phase *Types of bacteria according to their nutrition		
9		Characteristics of Fungi - Unicellular fungi (Yeast) - Multicellular fungi (Molds and fleshy fungi) - Dimorphic Fungi - Life cycle of Fungi - Nutritional adaptation of fungi		
10				Assignment 2
11		Fungal diseases (Mycosis) * Systemic mycoses * Cutaneous mycoses * Subcutaneous mycoses * Superficial mycoses * Opportunistic mycoses - Economic importance of fungi		
12		What is virus - living characteristic of viruses - Non living characteristic of viruses - Viron vs Viriod vs Prions - Classification of viruses - Virus Morphology - Virus Structure		
		- Viral replication - lytic cycle - lysogenic cycle - Bacteriophage - Viral diseases		
13		Biological relations Introduction to parasitology protozoa. Trematoda. Cestoda. Nematoda. Sporozoa		
14				Assignment 3

Is it possible to develop the curriculum <within the teaching authority 20%> to include vocabulary that serves sustainability

1- Yes, it is possible (point an appropriate aspect)	Developing life – long learning and education Sustainable development Development of general Health Gender Equality Efficiency of medicine and public health Mechanisms for obtaining good health and well-being
2- Suggest aspect that serves sustainability	