قسم تقنيات النباتات الطبية والنواتج الطبيعية/ مفردات المنهج

المرحلة الأولى

الفصل الدراسي الثاني

الاحياء المجهرية نظري

Week 1	Definition of microbiology, its position in the world of living organisms, prokaryotic and eukaryotic organisms, development of microbiology
Week 2	Characteristics of microorganisms, naming microorganisms, classification of microorganisms
Week 3	Bacteria, apparent characteristics, examination of bacteria, methods of staining bacteria, anatomy of bacteria, development of bacteria.
Week 4	Fungi, molds, reproduction, types, development, relationship with other living organisms
Week 5	Yeasts, types of yeasts, their reproduction, and agricultural characteristics
Week 6	Algae, morphological characteristics of algae, reproduction, isolation and purification of algae, economic importance
Week 7	Protozoa, their classification, gametophytes, flagellates, ciliates, and sporozoites
Week 8	Viruses, their characteristics, construction, classification, replication, methods of cultivating viruses
Week 9	Arcanesia, general properties, its divisions and importance, media of reproduction and development, diseases it causes
Week 10	Metabolism in microorganisms
Week 11	Microbial genetics, physical and chemical factors, antibiotics and therapeutic agents.
Week 12	Control of microorganisms
Week 13	The relationship of microorganisms to diseases, pathogens, infection, factors that affect the severity of infection.
Week 14	Applied microbiology, soil microbiology, water and food biology
Week 15	Immunity
Week 16	**final Exam**

احياء مجهرية عملي

Delivery Plan (Weekly Lab. Syllabus)	
week	**Material Covered**
Week 1	General instructions, identifying the devices, the microscope and how to use it
Week 2	Chemical materials, solutions, and dye preparation
Week 3	Cultivation media, their division, how to sterilize them, disinfectants and detergents
Week 4	Study of the shape of bacteria, their movement, Gram stain, and special dyes
Week 5	Isolation and development of bacteria and how to count them
Week 6	Molds and yeasts, fungal filaments, fungal cell, mycelium, types of germs
Week 7	Developing fungi found in soil, organic matter, water, and food
Week 8	Growing fungi, studying their shapes and phenotypic characteristics
Week 9	Isolation and purification of algae
Week 10	Classification of primary organisms, how to isolate them, and the environment in which they exist
Week 11	Studying the forms of viruses, how to extract and purify them
Week 12	Types of antibiotics, concentrations used and rates of inhibition
Week 13	Studying the effect of temperature and hydrogen ion concentration on bacterial growth
Week 14	Contrast and cooperation between living organisms
Week 15	Study of some physiological factors that affect the growth of fungi
Week 16	**Exam**