

Course Syllabus

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Name of the Second Teacher of the Course:Dr.Hula Younis Fadhil

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Academic System: Semester System

Textbooks	Human virology, Microbiology, Medical microbiology
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Weekly Schedule

week	Theoretical Content
.۱	Introduction of virology (History, definition, origins of viruses). Morphology, shape, size, structure.
.۲	Chemical composition of viruses. Taxonomy and classification of viruses.
.۳	Multiplication of viruses. Transmission of viruses, and Host range.
.۴	Pathogenesis of viral diseases and Effects of viruses on the host cells. ROUTES OF VIRUS ENTRY
.۵	Immunity of Viruses (Innate and Specific Immunity). Vaccine (Killed and live- attenuated virus vaccines).
.۶	Viruses of human medical importance. DNA Viruses(Enveloped and non- enveloped)
.۷	RNA viruses (Enveloped and non- enveloped)
.۸	EFFECTS OF VIRAL INFECTION ON CELLS <i>Morphological alterations , Lytic infection, Persistent Viral Infection and Transformation</i> (CANCER FORMATION)
.۹	Taxonomy of Tumor Viruses - DNA, RNA viruses and their mechanism
۱۰	Genetic changes of viral genome and New progeny
۱۱	Beneficial Use of Viruses

week	Practical Content
.۱	Biosafety (taxonomy, Signs, personal protective equipments and triple packaging system)
.۲	Laboratory equipments, chemical and physical agents
.۳	Cultivation of viruses. Check embryo, lab animals and cell lines techniques.
.۴	Practical application of check embryo assay.

٥.	Types of Tissue culture and their application.
٦.	Preparation of Primary tissue culture.
٧.	Subculture, Preservation, and Cytopatheic effesct
٨.	Quantitative assay of viruses (Viral load) Biological methods (End point “TCID ₅₀ “, Plaque assay, and Pock assays
٩.	Quantitative assay of viruses (Viral load) Physical, Biochemical methods
١٠.	Serological Tests Neutralization assay.