

SUBJECT: MICROBIOLOGY (TWO LECTURES / WEEK)

**TEACHERS: PROF. ABID HUSSAIN CHANG / DR. NAILA SHAIKH /
DR. ZAHIDA SHAIKH / DR. KHALIL AHMED MEMON**

GENERAL BACTERIOLOGY

- Prokaryotes & eukaryotes
- Bacterial cell structures
- Classification of medically important bacteria
- Normal flora and their importance in human body
- Bacterial growth (Growth curve) & their characteristics
- Bacterial Pathogenesis
- Host defenses
- Bacterial Genetics
- Laboratory diagnosis of bacteria
- Sterilization.

PARASITOLOGY

- Intestinal Protozoa (E.histolytica, G.lamblia)
- Blood & Tissue Protozoa (Plasmodium)
- Leishmania
- Trynosoma & Toxoplasma gondii
- Cestodes (Taenia Saginata & Solium)
- Cestodes (Hydatid cyst & D. Latum)
- Trematodes
- Nematodes- A. lumbricoides
- Nematodes- Ankylostoma Duodenale
- Nematodes- (T. Trichuria, E. Vermicularis & T. Spiralis)
- Nematodes- (S. stercoralis & W. Bancrofti)
- Nematodes-(Loaloa, O.volvulus & D. Medinensis)

GENERAL VIROLOGY

- Structure of virus
- Replication of virus.
- Classification of medically important viruses
- Viral Pathogenesis
- Host defenses and viral vaccines
- Laboratory diagnosis of viral infection

SPECIAL BACTERIOLOGY

- **Gram-positive cocci**
 - Staphylococci
 - Streptococci
 - S. pneumonia
- **Gram negative cocci**
 - Niesseriae
- **Gram positive bacilli (non-spore forming)**
 - Diphtheria
 - Listeria & Actinomyces
- **Gram positive bacilli (spore forming)**
 - Bacillus Species
 - Clostridia Species
- **Mycobacteria**
 - M. Tuberculosis
 - M. Leprae
- **Gram negative bacilli**
 - Salmonella + Shigella
 - E. coli + Klebsiella & Entrobacter
 - Proteus & Pseudomonas
 - Campylobacters, H.pylori + Vibrio
 - H. Influenza, B. Pertussis
- **Spirochaetes**
- **Rickettsia + Chlamydia + Mycoplasma**

MYCOLOGY

- Basic mycology
- Cutaneous & subcutaneous mycoses
- Systemic mycoses
- Opportunistic mycoses

SPECIALVIROLOGY

- DNA Viruses
 - Herpes virus
 - Human Papilloma Virus / Adenovirus
- RNA Viruses
 - Influenza Virus / Corona Virus
 - Rabies Virus
- Polio virus & Dengue Virus
- Hepatitis viruses
- Human immune deficiency virus
- Tumor viruses

ENVIRONMENTAL & NUTRITIONAL PATHOLOGY

TEACHER: DR. SULEMAN PIRZADO

- Environment and Disease
- Common environmental and occupational exposures
- Nutrition and disease