

Teaching Plan
Academic Year 2014-15

Class : B.Sc II year **Semester:III**
Subject :Microbiology **Paper No:VII**
Periods per week : Th. _1_ _ **Test (Date):**_____
Weeks (Total) : 17 **Tutorial (Date):**_____

Name of the teacher : Dr.Aditi Bhattacharya

Week	Topic to be Covered
1	June I week Unit II : Paper IX: Microbiology of water and waste water: Types of water, sources of microbes in water, sanitary quality of water.
2	June II week : Indicators of faecal pollution, faecal and nonfaecal coliforms, IMViC and elevated temperature test, Bacteriological examination of water: presumptive, confirmed and completed test.
3	July I week SPC, MPN and membrane filter technique. Water purification methods:
4	July II week : Disinfection of potable water supplies. Sewage Microbiology: Definition, chemical composition.
5	July III week : Microflora, diversity. Classification of sewage. Microflora of sewage; pathogens in sewage
6	July IVweek : Types of sewage ; grey water, black water Treatability of sewage; strength of sewage
7	July V week : Biological oxygen demand; chemical oxygen demand.

8	August I week: Activities of microorganisms in sewage, Microbiology of sewage treatment , Septic tanks, evapotranspiration, Imhoff tanks.BOD, COD, TDS, TSS,
9	August II week: Small sewage treatment; Pretreatment screening grit removal , Municipal sewage treatment: Primary treatment of sewage, secondary treatment, (aerobic and anaerobic process), chemical treatment : chlorination.
10	August III week : Primary, secondary and tertiary treatment of sewage.
11	August IV week: Primary treatment of sewage with working diagrams
12	September I week : Septic tanks, working, diagram
13	September II week: Imhoff tanks working, diagram
14	September III week: Trickling filters , working, diagram
15	September IV week: Activated sludge;
16	October I week : ; Disposal of treated sewage.(Fertilisers, landfill , irrigation water) Tertiary treatment of sewage; chemical treatment.
17	October II week : Application of sewage treatment; economic importance of waste disposal products

Teacher's Signature

H.O.D.'s Signature

Teaching Plan Academic Year 2014-15

Class : B.Sc II

Semester: III

Subject : Microbiology

Paper No: VIII

Periods per week : Th. ___ Pract. ___

Test (Date): _____

Weeks (Total) : 15

Tutorial (Date): _____

Name: Dr Madhuri Sahasrabudhe

Week	Topic to be Covered
June 1	Unit I : Host parasite relationship: <ul style="list-style-type: none"> ▪ Definition of basic terms used in Immunology ▪ Normal flora of human body ▪ Significance of normal flora
2	<ul style="list-style-type: none"> ▪ Types of cells involved ▪ Phagocytic cells- macro and microphages
July 1	<ul style="list-style-type: none"> ▪ Infection: Definition, types ▪ Primary, secondary, reinfection ▪ Typical, subclinical, latent, nosocomial ▪ Sources of infection ▪ Methods of transmission of diseases
2	<ul style="list-style-type: none"> ▪ Terms used to describe diseases ▪ Process of infection

	<ul style="list-style-type: none"> ▪ Entry and spread of infection
3	<ul style="list-style-type: none"> ▪ Aggressins
August 1	<p>Unit II : Immunity</p> <ul style="list-style-type: none"> ▪ Definition, classification, types ▪ Active, passive, cellular, humoral, specific, nonspecific ▪ Complement ▪ Interferons
2	<ul style="list-style-type: none"> ▪ Toxoids and immune sera, adjuvants ▪ Vaccines- types, administration
3	<ul style="list-style-type: none"> ▪ Immunization schedule ▪ Antigen- Definition ▪ Determinants of antigenicity
4	<ul style="list-style-type: none"> ▪ Types of antigens ▪ MHC antigen Heterophile antigens ▪ Antigens in relation to bacterial cells ▪ Immunoglobulins- structure and classes
September	<ul style="list-style-type: none"> ▪ Types of antibodies <p>Week 2: Unit III: Immune response</p> <ul style="list-style-type: none"> ▪ Definition, primary and secondary response ▪ Fate of antigens in tissues ▪ Production of antibodies- organs and cells involved <p>Week 3: Monoclonal antibodies</p>

	<ul style="list-style-type: none"> ▪ Regulation of antibody production ▪ Factors influencing antibody production
October 1	CMIR- organs and cells involved <ul style="list-style-type: none"> ▪ Characteristics and types of T cells ▪ Ag-Ab reactions- General consideration
2	<ul style="list-style-type: none"> ▪ Agglutination- blood grouping and WIDAL ▪ Precipitation, flocculation ▪ CFT
3	<ul style="list-style-type: none"> ▪ NT ▪ IF-IIF, DIF ELISA ▪ General methods of prophylaxis ▪ Hypersensitivity ▪ Question and answers- discussions

Teacher's Signature

H.O.D.'s Signature