

Curriculum plan (NEP; Even Semester 2025-26)

Teacher Name: Dr. K. Vandana Rani

Paper name: LS DSC Course-VIII: Principles of Immunology

Class type: Theory

Paper shared with: NA

Unit to be taken	Allocated lectures	Month wise schedule to be followed	Tests/ Assignments/ Revision/ Presentations etc
Unit 1: Overview of the Immune system i) Early theories of immunology, clonal selection theory. ii) Innate immunity: Components & defensive barriers of innate immunity, iii) Adaptive immune system: Components and attributes of acquired immunity, iv) Humoral and cellular mediated immunity, v) active and passive immunity,	06	07/01/2026 to 23/01/2026	
Unit 2: Antigen and Immunoglobulins i) Antigens and immunogens, ii) antigenicity and immunogenicity, iii) Factors affecting immunogenicity, iv) Antigenic determinants and its properties (B and T cell epitopes), v) Adjuvants and haptens. Immunoglobulins vi) Structure, different classes and function of antibodies, vii) Antigenic determinants on immunoglobulins, viii) Production and applications of monoclonal antibodies.	10	28/01/2026 to 27/02/2026	Assignment s/ Presentation
Unit 3: MHC and Antigen Presentation i) Structure and Functions of MHC (MHC-I & MHC-II)ii) Endogenous and Exogenous pathways of Antigen processing and presentation	4	10/03/2026 to 20/03/2026	Test
Unit 4: Complement System and Cytokines: i) Pathways of complement activation and biological consequences of complement activation. ii) Basic Properties and Functions Cytokines	3	25/03/2026 to 01/04/2026	Revision
Unit 5: Immune system in Health and Diseases i) Vaccines and their Types ii) Gell and Coomb's Classification of Hypersensitivity iii) Autoimmunity and Immuno-deficiency with Suitable examples	7	03/04/2026 to 24/04/2026	

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Signature

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Paper name: LS DSC Course-VIII: Immunology

Class type: Practicals (Group: G1+G2& G3+G4)

Paper shared with: Mrs. Shikha Rani + Mr. Vikash Yadav

Unit to be taken	Allocated lectures	Month wise schedule to be followed (G1+G2)	Tests/Assignments/ Revision/ Presentations etc
1. Demonstration of Lymphoid Organ	4	5.01.26	
2. Histological Study of Spleen, Thymus and Lymph Nodes through Slides/ Photographs	4	12.01.26/ 19.01.26	
3. Preparation of stained blood film to study various types of blood Cells	4	02.02.26/9.02.26	Presentation
4. Ouchterlony's double immuno-diffusion method.	4	16.02.26 23.02.26	
5. ABO Blood group antigen determination	4	09.03.26	
6. Cell counting and viability test from splenocytes of farm bred animals/cell lines.	4	16.03.26 23.03.26	
7. i) Demonstration of ELISA and ii) RIA iii) Demonstration of Immunoelectrophoresis iv). FACS v). ELISPOT	4	30.03.26 06-04.26 13.04.26	
	4		
	4		
Repeat		20-04-26-27.11.25	Revision/ File Evaluation/ MOC

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