

<b>School: Biotechnology</b>		<b>Program: B.Sc.-M.Sc. (Biotechnology)</b>		<b>Semester: IV</b>
<b>Course Title:</b>		<b><u>Immunology Lab</u></b>		
<b>Course Code:</b>		<b><u>BTP MD204</u></b>		
<b>Course Coordinator:</b>		<b><u>VINOD SINGH</u></b>		
<b>L-T-P:</b>		<b>Credits: 0-0-2</b>		
<b>Evaluation Scheme (Total Marks 100)</b>				
<b>Lab Exam (40 Marks)</b>		<b>Lab Record</b>	<b>Viva-Voice</b>	<b>Total</b>
<b>Written</b>	<b>Lab- Performance</b>	<b>30 Marks</b>	<b>30 Marks</b>	<b>100 Marks</b>
<b>WEEKS</b>		<b>DETAILS OF EXPERIMENTS TO BE PERFORMED</b>		
Week1		Introduction to Lab		
Week 2		Separation of serum from blood		
Week 3		Total leucocytes count		
Week 4		Total leucocytes count		
Week 5		Differential leucocytes count		
Week 6		Differential leucocytes count		
Week 7		Blood typing		
Week 8		Latex agglutination test		
Week 9		Single radial diffusion test for the quantitative estimation of antigen		
Week10		Single radial diffusion test for the quantitative estimation of antigen		
Week 11		Mid-Term (17 <sup>th</sup> -21 <sup>st</sup> March, 2025)		
Week12		Double immunodiffusion test using specific antibody and antigen		
Week13		Double immunodiffusion test using specific antibody and antigen		
Week 14		ELISA		
Week 15		ELISA		
Week16		ELISA		
Week 17		Lab Exam		

**Course Outcomes: After successful completion of this course, students shall be able to**

CO1: Perform TLC and DLC

CO2: Perform blood typing

CO3: Perform immunological experiments and analyze results.

**Recommended Books:**

1. Practical Immunology, 4<sup>th</sup> Edition, Frank C. Hay, and Olwyn M. R. Westwood, Wiley-Blackwell.
2. Blood cells: A Practical Guide, 6<sup>th</sup> Edition, Barbara J. Bain, John Wiley & Sons Ltd.
3. Immunology Virtual Lab I (<https://ivl1-au.vlabs.ac.in/>)
4. Immunology Virtual Lab II (<https://ivl2-au.vlabs.ac.in/>)

**Signature of Course Coordinator:**