

Department of Liberal Education
Era University, Lucknow
Course Outline
Effective From: 2023-24

Name of the Program	B.A. / B.Sc. (LIBERAL EDUCATION)			Year/ Semester:	3rd / 5th
Course Name	Medical Microbiology Practical Training	Course Code:	MB301P	Type:	Practical
Credits	01			Total Practical Hours:	30 Hours
Evaluation Spread	Internal Continuous Assessment:	10 Marks		End Term Exam:	15 Marks
Type of Course	<input type="radio"/> Compulsory	<input checked="" type="radio"/> Core	<input type="radio"/> Creative	<input type="radio"/> Life Skill	
Course Objectives	<ul style="list-style-type: none"> This course will give the knowledge of preparation of agar media required for medically important microorganisms. Through this learner will be able to determine serological tests: Widal, VDRL, Pregnancy test and antibiotic sensitivity test and MIC determination. 				
Course Outcomes(CO): <i>After the successful course completion, learners will develop following attributes:</i>					
Course Outcome (CO)	Attributes				
CO1	Students will learn to preparation of agar media required for medically important microorganisms				
CO2	Learner have the ability to characterization of skin normal microflora				
CO3	Students will be able to demonstration of α and β haemolysis on blood agar medium				
CO4	Students will be able to demonstration of serological tests: Widal, VDRL, Pregnancy test and antibiotic sensitivity test and MIC determination				
Pedagogy	Interactive, discussion-based, student-centered. program outputs.				
Internal Evaluation Mode	Experiment-Writing and Conductance File Maintenance/ Laboratory Record Continuous Attendance and Participation				
Practical No.	Experiments			Contact Hours	Mapped CO
1.	Preparation of agar media required for medically important microorganisms			4	CO1
2.	Characterization of skin normal microflora.			4	CO2
3.	Demonstration of α and β haemolysis on blood agar medium			6	CO3
4.	Demonstration of serological tests: Widal, VDRL, Pregnancy test			8	CO4
5.	Antibiotic sensitivity test and MIC determination			8	CO4

CO-PO and PSO Mapping														
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6
CO1	1	1	1	2	2	2	2		2	2	2			
CO2	1			2	2	2	2		2	2	2			
CO3	1	1	2	2	2	2	2	1	2	2	3	1	2	
CO4	1	1	1	2	2	2	2	1	2	2	2	1	1	
<i>Strongcontribution-3, Averagecontribution-2, Lowcontribution-1,</i>														
Suggested Readings:														
Reference Books	<ol style="list-style-type: none"> Hudson L, and Hay FC, Practical Immunology, 3rd edition, Wiley. Noel R. Rose, Herman Friedman, John L. Fahey., Manual of Clinical Laboratory Immunology, 3rd edition, ASM. Ed.3; 1986. Talwar GP and Gupta SK, A Handbook of Practical and Clinical Immunology, Vol.I-II; CBS Publishers and Distributors. Delhi Aneja KR, Experiments in Microbiology, Plant Pathology and Biotechnology, 1st edition, New AgeInternational Publisher 													
E-Resources	<ol style="list-style-type: none"> http://www.vlab.co.in http://asm.org/articles/2020/december/virtual-resources-to-teach-microiology-techniques 													
Internal Practical Evaluation:														
Component	Marks													
Experiment-Writing and Conductance	5													
File Maintenance/ Laboratory Record	2													
Continuous Attendance and Participation	1													
Viva-Voce	2													
Total Marks	10													

Course created by: Dr.Manaal Zahera

Signature:

Approved by: Dr. Amita Jain

Signature: