

FOUR YEAR UNDERGRADUATE PROGRAM (2024 – 28)

DEPARTMENT OF MICROBIOLOGY

COURSE CURRICULUM

PART – A: Introduction			
Program: Bachelor in Life Science (Diploma/Degree)		Semester - III/IV	
Session: 2024-25			
1	Course Code	MBVAC-01	
2	Course Title	Microbes and Human Health	
3	Course Type	Value Added Course (VAC)	
4	Prerequisite (If Any)	As per Program	
5	Course Learning Outcomes (CLO)	At the end of this course, the students will be able to – <ul style="list-style-type: none"> ➤ define the basic concept of Infection and disease ➤ explain various serological tests ➤ illustrate the basic knowledge of Immune status of human body ➤ identify various infectious diseases 	
6	Credit Value	02 Credits	Credit = 15 Hours - Learning & Observation
7	Total Marks	Max. Marks: 50	Minimum Pass marks: 20
PART – B: Content of the Course			
Total No. of Teaching-Learning Periods: (01 Hr. per Period) - 30 Periods (30 Hours)			
Unit	Topics (Course contents)		No. of Periods
I	Infection & Disease: Difference between infection and disease, Important terminologies along with suitable examples; primary infection, secondary infection, contagious infection, nosocomial infections, clinical infection, subclinical infection, zoonoses, vector borne infection. Epidemic, endemic and pandemic diseases.		08
II	Routes of entry and transmission of disease: Portal of entry, Portal of exit, Reservoir, susceptible host. Direct contact, indirect contact, Airborne, vector borne, blood borne, non-contact vehicle transmission. Exposure, risk and standard precautions, expanded precautions. Control of routes of transmission.		08
III	Serological reactions: Basic concept of serological reactions, blood cell counting, Agglutination, precipitation. Blood group determination, Widal test, VDRL test. Total RBC count, Total leucocyte count, Platelet count, Differential count, Estimation of haemoglobin.		07
IV	Viral and Bacterial infection: Common water borne infections, air borne infections; their causes, sign & symptoms, pathogenesis, diagnosis, treatment and prevention.		07
Key Words	Infection, Disease, Virulence, Pathogenesis		

Name and Signature of Convener and Members of CBoS

Danu 10/6/24 P. S. Nagal 10/6/24 S. S. Nagal 10.6.24 Rashmi 10.6.24 [Signature] 10.6.24 [Signature] [Signature] DR. K. K. P. Ch. [Signature] Dr. Nelbar Kess

PART – C: Learning Resources

Text Books, Reference Books and Others

Text Books Recommended:

1. A Text Book of Microbiology; Dubey & Maheshwari.
2. General Microbiology; Vol I & II, Powar C.B. and Dagainawala H.I., Himalayn Pub. House, Bombay.
3. Text book of Microbiology; Ananthanarayan R. and Paniker C.K.J. (2009). 8th edition, University Press Publication
4. A Text Book of Microbiology; P. Chakraborty, 3rd Edn, New Central book Agency (P) Ltd, Kolkata, India 2005.

Reference Books:

1. Preventive and Social Medicine, Park and Park

- https://sist.sathyabama.ac.in/sist_coursematerial/uploads/SBMA1302.pdf
- <https://www.news-medical.net/health/Modes-of-Transmission.aspx>
- <https://courses.lumenlearning.com/suny-microbiology/chapter/how-pathogens-cause-disease/>

PART – D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 50 Marks

Continuous Internal Assessment (CIA): 15 Marks

End Semester Exam (ESE): 35 Marks

Continuous Internal Assessment (CIA): (By Course Teacher)	Internal Test/ Quiz – (2): 10 & 10 Assignment/ Seminar + Attendance: 05 Total Marks: 15	Better Marks out of the two Test/ Quiz + obtained marks in Assignment shall be considered against 15 Marks
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End Semester Exam (ESE):

Two Section – A & B

Section A: Q1. Objective 05 X 1 = 05 Mark; Q2. Short answer type – 5X2 = 10 Marks

Section B: Descriptive answer type qts., 1 out of 2 from each unit – 4X05 = 20 Marks

Name and Signature of Convener and Members of CBoS

Plab
10/6/24

Sum
10.6.24

Roshmi
10.6.24

Dr. Nelson xers
10-6-24

Dr. Swetha Nagar
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Dr. V. Shanthi
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