

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur

Department of Microbiology

(Teaching Plan 2022-23)

Second Term

Name of the Faculty: Dr. D. V. Vedpathak

1. Details of Classes to be taught

Sr. No.	Class	Name of Teacher	Subject	Paper
1.	B.Sc. I	Dr. D.V. Vedpathak	Microbiology	Lab course 2
2.	B. Sc. I			Paper IV, U-MIB- 255
3.	B. Sc. II			Paper :VII, U-MIB- 459

Class : B.Sc. I, Sem:II , Paper :IV

Course title: Microbial Nutrition and Growth

Course Code: U-MIB- 255

Unit	Chapter to be covered	No. of Lectures	Date	Academic activities to be organized	Test/ Assignment
I	Cultivation media and pure culture methods 1.1 Properties of a good culture medium. 1.2 General ingredients of culture media and their role 1.3 Definition, Concept, Use and Types of different culture media 1.4 Definitions – 1.5 Isolation of microorganisms 1.6 Cultivation of anaerobes	13	12/12/2022 to 09/01/2023	Student's seminar	Tutorial
II	Microbial Nutrition 2.1 Major bio-elements 2.2 Minor bio-elements 2.3 Growth factors 2.4 Sources of energy 2.5 Nutritional categories of microorganisms	10	10/01/2023 to 31/01/2023	Student's seminar	Tutorial

III	Microbial transport 3.1 Modes of nutrition 3.2 Nutrient transport and membrane function 3.3 Passive diffusion 3.4 Facilitated diffusion 3.5 Active transport mechanism 3.6 Group translocation	10	01/02/2023 to 22/02/2023	Guest Lecture	Tutorial
IV	Microbial Growth 4.1 Microbial Growth 4.2 Mathematical expression of growth 4.3 Growth curve and diauxic growth 4.4 Measurement of growth 4.5 Different types of bacterial cultures	12	27/02/2023 to 28/03/2013	Student's seminar	Tutorial



Dr D. V. Vedpathak



Prof. K. G. Maske

HEAD
HoD, Microbiology
Dept. of Microbiology,
Rajarshi Shahu Maharaja
T.A. ...

Principal

Name of the Faculty: Dr. D. V. Vedpathak

Subject: Microbiology

Class : B.Sc. II, Sem: IV, Paper :VII

Course title: Environmental Microbiology Course Code: U-MIB- 459

Unit	Chapter to be covered	No. of Lectures	Date	Academic activities to be organized	Test/ Assignment
I	Microbial ecology and Interactions 1.1 Microbial ecology 1.2 Symbiosis: Definition and functions, Types of associations	11	08/12/2022 To 30/12/2022	A short tour to understand the ecological concepts	Tutorial
II	Plant growth promoting rhizobacteria 2.1 Rhizosphere 2.2 Direct plant growth promotion 2.3 Indirect plant growth promotion –Biocontrol	11	31/12/2022To 27/01/2023	Market survey for PGPR	Tutorial
III	Soil Microbiology and Carbon cycle 3.1 Soil environment 3.2 Carbon cycle	13	28/01/2023 To 02/03/2023	Student's seminar	Tutorial
IV	Microbial transformation of N,S,P in soil 4.1 Nitrogen cycle 4.2 Sulfur cycle 4.3 Phosphorus cycle	10	03/03/2023 To 24/03/2023	Student's seminar	Tutorial



Dr D. V. Vedpathak

Prof. K. G. Maske

**HoD, Microbiology
Dept. of Microbiology
Majarshi S. A. Chaudhary
12**



Principal