

Rajarshi Shahu Mahavidyalaya (Autonomous), Latur
Department of Microbiology
(Teaching Plan 2023-24)
Second Term


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


Subject: Microbiology


Class : B.Sc. I, Sem:II

Course title: Microbial Nutrition and Growth

Unit	Chapter to be covered	No. of Lectures	Date	Academic activities to be organized	Test/ Assignment
I	Cultivation media and Pure culture methods	10	07/12/2023 to 28/12/2023	Seminars	Class test
II	Microbial Nutrition and nutrient transport	10	29/12/2023 to 19/01/24	Seminar	Assignment
III	Microbial Growth	12	20/01/2024 to 17/02/2024	Guest Lecture	Assignment
IV	Microbial Growth	13	22/02/2024 to 23/03/2024	Seminar	Class test


Dr D. V. Vedpathak


Prof. K. G. Maske
HEAD
HoD, Microbiology
(Dept. of Microbiology)
Rajarshi S. S. U Mahavidyalaya
Latur - 413 512


PRINCIPAL
Rajarshi Shahu Mahavidyalaya, Latur
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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	06/12/2023 To 02/01/2024	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	08/01/2024To 30/01/2024	Market survey for PGPR	Tutorial
III	Soil Microbiology and Carbon cycle 3.1 Soil environment 3.2 Carbon cycle	13	31/01/2024 To 04/03/2024	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	05/03/2024 To 27/03/2024	Student's seminar	Tutorial


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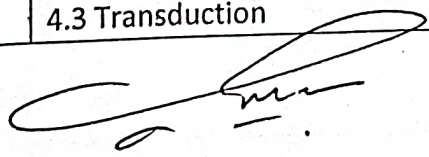
Name of the Faculty: Dr. D. V. Vedpathak

Subject: Microbiology

Class : B.Sc. III, Sem: VI, Paper :XI


Course title: Microbial Genetics Course Code: U-MIB- 665

Unit	Chapter to be covered	No. of Lectures	Date	Academic activities to be organized	Test/ Assignment
I	Mutations 1.1 Types of Mutations 1.2 Spontaneous mutation 1.3 Evidences for spontaneous mutations 1.4 Induced mutations 1.5 Ames Test to identify chemical mutagens	10	07/12/2023 To 28/12/2023	A short tour to understand the ecological concepts	Tutorial
II	Repair of DNA damage 2.1 Introduction 2.2 Photo-reactivation 2.3 SOS system 2.4 Nucleotide Excision Repair 2.5 Base Excision Repair 2.6 Mismatch Excision Repair	10	29/12/2023 To 19/01/2024	Market survey for PGPR	Tutorial
III	Recombination and transposable elements 3.1 Types of recombination process 3.2 Transposition	11	20/01/2024 To 16/02/2024	Student's seminar	Tutorial
IV	Gene transfer in bacteria 4.1 Transformation 4.3 Transduction	14	17/02/2024 To 23/03/2024	Student's seminar	Tutorial


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First Term

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

Subject: Microbiology

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

Course title: Methods in Microbiology Course Code: U-MIB- 154

Unit	Chapter to be covered	No. of Lectures	Date	Academic activities to be organized	Test/ Assignment
I	Bio-imaging	12	10/07/2023 to 08/08/2023	Seminars	Class test
II	Microbial Staining Techniques	10	09/08/2023 to 09/09/23	Seminar	Assignment
III	Sterilization and disinfection	13	11/09/2023 to 09/10/2023	Guest Lecture	Assignment
IV	Effect of environmental factors on microbial growth and survival	10	10/10/2023 to 04/11/2023	Seminar	Class test



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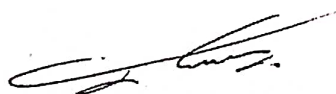
Subject: Microbiology


Class : B.Sc. II, Sem: III , Paper :V


Course title: Applied Microbiology

Course Code: U-MIB- 359

Unit	Chapter to be covered	No. of Lectures	Date	Academic activities to be organized	Test/ Assignment
I	Air Microbiology	10	19/06/2023 to 09/08/2023	Daily Recording of Air quality	Class test
II	Water Microbiology	12	14/08/2023 to 04/09/2023	Seminar	Assignment
III	Waste water microbiology	08	05/09/2023 to 25/09/2023	Guest Lecture	Class test
IV	Food and milk microbiology	15	26/09/2023 to 14/10/2023	Seminar	Assignment


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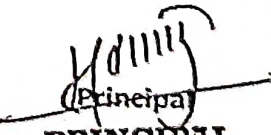
Class : B.Sc. III, Sem: V

Course title: Molecular Microbiology

Unit	Chapter to be covered	No. of Lectures	Date	Academic activities to be organized	Test/ Assignment
I	DNA: Structure, replication and properties	10	19/06/2023 to 09/08/2023	Seminars	Class test
II	Genes and genetic code	10	14/08/2023 to 04/09/2023	Seminar	Assignment
III	Gene Expression	12	05/09/2023 to 25/09/2023	Guest Lecture	Assignment
IV	Gene cloning	13	26/09/2023 to 14/10/2023	Seminar	Class test


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