

YASHWANTRAO CHAVAN COLLEGE OF SCIENCE KARAD

DEPARTMENT OF MICROBIOLOGY

UG

2024-25

PROGRAMME OUTCOMES

PROGRAMME SPECIFIC OUTCOMES

COURSE OUTCOMES

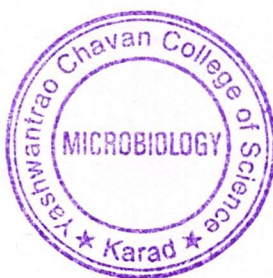
Yashwantrao Chavan College of Science Karad

Department of Microbiology (UG)

Programme Specific Outcomes (PSO)

After successful completion of UG syllabus of Microbiology student should able to

	Programme Outcomes (PSO)
PSO 1	Understand basics of morphology and cytology of microorganisms
PSO 2	Student can perform staining, handling of microscope, preparation and sterilization of culture media
PSO 3	Learn about isolation, cultivation and preservation of microorganisms
PSO 4	Learn different biomolecules and their role.
PSO 5	Understand the working principles and applications various equipment's used in Microbiology laboratory.

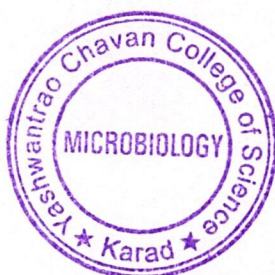


Yashwantrao Chavan College of Science Karad

Department of Microbiology (UG)

Programme Outcomes (PO)

	Programme Outcomes (PO)
PO 1	Acquired knowledge and understanding of the microbiology concepts as applicable to diverse areas such as medical, industrial, environment, genetics, agriculture, food and others.
PO 2	Demonstrate key practical skills/competencies in working with microbes for study and use in the laboratory as well as outside, including the use of good microbiological practices.
PO 3	Competent enough to use microbiology knowledge and skills to analyze problems involving microbes, articulate these with peers/team members/ other stake holders, and undertake remedial measures/studies etc.
PO 4	Developed a broader perspective of the discipline of Microbiology to enable him to identify challenging societal problems and plan his professional career to develop innovative solutions for such problems.



Yashwantrao Chavan College of Science Karad

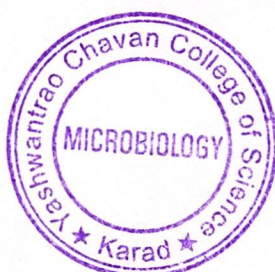
Department of Microbiology (UG)

Course Outcomes (CO)

DSC I - Introduction to Microbiology	
After completion of this course, students will be able	
CO 1	To develop a good knowledge of the development of the discipline of Microbiology and the contributions made by prominent scientists in this field.
CO 2	To develop a very good understanding of the characteristics of different types of microorganisms, methods to organize/classify these into and basic tools to study these in the laboratory.
CO 3	To explain the useful and harmful activities of the microorganisms and scope of different branches of Microbiology.
CO 4	To describe characteristics of bacterial cells, cell organelles and various appendages like capsules, flagella or pili.

DSC II - Basic Techniques in Microbiology	
After completion of this course, students will be able	
CO 1	To study the staining techniques for the observation of bacteria and bacterial cell components
CO 2	To study the working principle, handling and use of microscopes for the study of microorganisms
CO 3	To understand the principles of sterilization and disinfection of culture media, glassware and plastic ware and other objects to be used for microbiological work

DSC Pract. -I: PRACTICALS BASED ON DSC I & II	
After completion of this course, students will be able	
CO 1	To understand the basic techniques in Microbiology laboratory .
CO 2	To study the working principle, handling and use of compound microscope for study of microorganisms
CO 3	To study the simple and special staining techniques for the observation of bacteria and bacterial cell components
CO 4	To understand the working principles and applications various equipment's in Microbiology laboratory
CO 5	To study the preparation, sterilization and use of various culture media



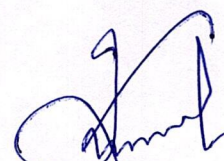
DSC III - Bacteriology	
After completion of this course, students will be able	
CO 1	To describe the nutritional requirements of bacteria and other microbes which grow under extreme environments.
CO 2	To understand the basic laboratory experiments to isolate, cultivate and differentiate bacteria
CO 3	To study the preservation of bacteria in the laboratory

DSC IV – Applied Microbiology	
After completion of this course, students will be able to,	
CO 1	To develop a very good understanding of applied branches of Microbiology.
CO 2	To develop the knowledge of how the microorganisms play role in Water microbiology
CO 3	To make well conversant about food preservation techniques
CO 4	To develop knowledge of milk processing and milk testing.

DSC Pract. -II: PRACTICALS BASED ON DSC III & IV	
After completion of this course, students will be able	
CO 1	To understand the basic laboratory experiments to isolate and cultivate
CO 2	To study various biochemical tests used to differentiate bacteria



HEAD
DEPARTMENT OF MICROBIOLOGY

Principal
Yashwantrao Chavan College
of Science, Karad.