

**Shivraj College OF ARTS COMMERCE AND D.S.KADAM  
SCIENCE COLLEGE, Gadhinglaj**

**Department of Microbiology**

Microbiology program outcomes, program specific outcome and course outcome

**Program outcomes**

1. To make the students knowledgeable with respect to the subject and its practicable applicability.
2. To promote understanding of basic and advanced concepts in microbiology
3. To expose the students to various emerging areas of Microbiology.
4. To prepare students for further studies helping in their bright career in the subject
5. To expose the students to different processes used in industries and in research field
6. To develop their ability to apply the knowledge of microbiology in day to day life.
7. To prepare the students to accept the challenges in life sciences.
8. To develop skills required in various industries, research labs and in the field of human health



## Program specific outcome:

1. PS01 Overall Objectives of the Microbiology Laboratory
2. PS02 The overarching goals for the laboratory portion of this course are to teach microbiological techniques
3. PS03 To show students the impact of microbes on our daily lives and their central
4. PS04 BSc Microbiology course involves the study of microorganisms with particular emphasis on the biology of bacteria, viruses, fungi and protozoan parasites.
5. PS05 The students can gain knowledge about some very essential topic of microbes and their impact on our life cycle



## COURSE OUTCOME (CO)

### BSCIII Semester I

COURSE TITLE	VIROLOGY
PAPER NO	IX (DSE- E 49)
COURSE OUTCOMES	<ul style="list-style-type: none"><li>• Can describe the structure and replication of viruses</li><li>• Can achieve basic knowledge on virus cultivation</li><li>• Can learn sampling methods for virological diagnosis</li><li>• Can describe</li></ul>



	<p>basic methods used for diagnosis of viral diseases</p> <ul style="list-style-type: none"> <li>• Can define important viral diseases in cattle, sheep and goats, cats and dogs as well as horses</li> </ul>
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## BSCIII Semester I

COURSE TITLE	immunology
PAPER NO	X (DSE- E 50)
COURSE OUTCOMES	<ul style="list-style-type: none"> <li>• define central immunological principles and concepts</li> <li>• To compare and contrast the key mechanisms and cellular players of</li> </ul>



	<p>innate and adaptive immunity and how they relate</p> <ul style="list-style-type: none"> <li>• elucidate the genetic basis for immunological diversity and the generation of adaptive immune responses</li> <li>• outline key events and cellular players in antigen presentation, and how the nature of the antigen will shape resulting effect or responses</li> </ul>
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### BSCIII Semester I

COURSE TITLE	Food and Industrial Microbiology
PAPER NO	Course XI (DSE E 51)
COURSE OUTCOMES	<ul style="list-style-type: none"> <li>• Industrial Microbiology is a branch of applied microbiology in which microorganisms are used for the production of important substances, such as</li> </ul>



	antibiotics, food products, enzymes, amino acids, vaccines, and fine chemicals.
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### *BSCIII Semester I*

COURSE TITLE	Agricultural Microbiology
PAPER NO	Course XII (DSE E 52)
COURSE OUTCOMES	<ul style="list-style-type: none"> <li>• To gain knowledge on several beneficial and harmful micro-organisms</li> <li>• To have detailed idea about their cell structure, reproduction and mechanism of action</li> <li>• To know the complex interaction between agriculture system and micro-organism.</li> <li>• To introduce micro-organism in agricultural system for building a pathway for sustainable agriculture.</li> </ul>

### **BSCIII Semester II**

COURSE TITLE	Microbial Genetics
PAPER NO	Course XIII (DSE F 49)
COURSE OUTCOMES	<ul style="list-style-type: none"> <li>• Taking time to learn about genetics can help you understand your own health and make healthy choices. Genes that do not work</li> </ul>



	correctly can cause problems. A group of rare diseases are caused when a single gene stops working normally.
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COURSE TITLE	Microbial Biochemistry
PAPER NO	Course XIV (DSE F 50)
COURSE OUTCOMES	<ul style="list-style-type: none"> <li>Major goal of biochemistry is to understand the structure and behaviour of bio molecules. These are organic (carbonaceous) compounds that make up different parts of living cells and carry out chemical reactions that allow them to grow, maintain, reproduce, use and store energy.20-Sept-2022</li> </ul>
COURSE TITLE	Environmental Microbiology
PAPER NO	Course XV (DSE F 51)
COURSE OUTCOMES	<ul style="list-style-type: none"> <li>Environment studies are all about learning the way we should live and how we can develop sustainable strategies to protect the environment. It helps individuals to develop an understanding of living and physical environment and how to resolve challenging environmental issues affecting nature.</li> </ul>



COURSE TITLE	Medical Microbiology
PAPER NO	Course XVI (DSE F 52)
COURSE OUTCOMES	<ul style="list-style-type: none"><li>• To impart knowledge of the basic principles of bacteriology, virology, mycology, immunology and parasitological including the nature of pathogenic microorganisms, pathogenesis, laboratory diagnosis, transmission, prevention and control of diseases common in the country.</li></ul>







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