



# Introduction, Importance, Areas of Microbiology

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Subject: **Microbiology**

Class: **FSc MLT**



# Objectives

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- To get familiar with the concept of Microbiology
- To know about the importance of Microbiology
- To know about areas of study



# Introduction of Microbiology

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- The scientific study of microorganisms, which are tiny organisms that are invisible to naked eye is called **Microbiology**.
- Microorganisms include bacteria, viruses, fungi, algae and protozoa.
- Microorganisms are present everywhere in the world.
- These affect animals, environment, human health and economy.



# Importance of Microbiology

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- **Understanding Diseases;** Cause of many **diseases** like T.B, malaria, influenza, HIV, Covid 19 due to bacteria, viruses, and parasites.
- **Biotechnology and Industrial Application;** Microbes are used in fermentation to form beverages, bread, yogurt, and cheese.
- Also used in antibiotic production, enzymes, vitamins.
- **Environmental impact;** Involved in nutrient cycling, decomposition of organic matter and soil fertility, (Bioremediation).



# Importance of Microbiology

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- **Agriculture and Food Safety;** Enhance soil fertility and plant growth.
- **Human Health and Microbiome:** Normal flora involved in digestion, metabolism, immunity.



# Micro-organisms

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- **Bacteria (Bacteriology)**
- **Viruses (Virology)**
- **Fungi (Mycology)**
- **Algae Phycology)**
- **Protozoa (Protozoology)**



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Thanks