



Microbiology Summer Training Program

The Microbiology Summer Training Program delivers foundational knowledge and practical skills in microbiology, including molecular techniques, microbial culturing, environmental microbiology, and clinical applications.

Note: Below modules are designed keeping high end industrial professionals into consideration. Please refer individual protocols below for affordable prices.

Foundations of Molecular Microbiology

Kindly review the fees outlined for the individual protocols listed in this module.

- Basic PCR for microbial DNA analysis
- Introduction to gel electrophoresis for DNA visualization
- Gene cloning basics and plasmid transformation
- Restriction digestion and ligation methods

Environmental Microbiology Techniques

Kindly review the fees outlined for the individual protocols listed in this module.

- Identification of environmental microbes
- Biofilm formation and assessment
- Bioremediation basics and pollution control using microbes
- Techniques for analyzing microbial diversity

Clinical Microbiology Basics

Kindly review the fees outlined for the individual protocols listed in this module.

- Introduction to ELISA for pathogen detection
- Antimicrobial susceptibility testing (AST) for clinical isolates
- Identification of common pathogens using biochemical tests

- Blood culture methods and pathogen isolation

Food Microbiology and Safety

Kindly review the fees outlined for the individual protocols listed in this module.

- Foodborne pathogen identification
- Introduction to HACCP and food safety standards
- Enumeration of spoilage organisms
- Shelf-life testing for microbial stability

Industrial Microbiology

Kindly review the fees outlined for the individual protocols listed in this module.

- Scale-up of microbial cultures in bioreactors
- Quality control for microbial products
- Isolation and identification of industrially relevant microbes
- Downstream processing for product recovery

Microbial Genetics and Genomics

Kindly review the fees outlined for the individual protocols listed in this module.

- 16S rRNA sequencing basics for microbial identification
- Bioinformatics basics for genomic data analysis
- Introduction to CRISPR and gene editing in microbes
- Whole-genome sequencing overview

Immunological Techniques in Microbiology

Kindly review the fees outlined for the individual protocols listed in this module.

- Western blotting basics for protein identification
- Antibody production in response to microbes
- Flow cytometry for microbial immunology
- Immunofluorescence techniques for microbial visualization

Soil and Agricultural Microbiology

Kindly review the fees outlined for the individual protocols listed in this module.

- Nitrogen fixation and nutrient cycling studies
- Biofertilizer production methods
- Testing microbial inoculants for soil health
- Pathogen detection in agricultural settings

Applied Microbial Biochemistry

Kindly review the fees outlined for the individual protocols listed in this module.

- Enzyme activity assays in microbial samples
- Metabolic pathway analysis
- Spectrophotometric analysis for microbial biochemistry
- Quantification of microbial products

Quality Assurance and Control in Microbiology

Kindly review the fees outlined for the individual protocols listed in this module.

- Calibration and maintenance of microbiological instruments
- Standard Operating Procedures (SOP) for microbiological testing
- Data recording and lab notebook management
- Quality control for microbial assays

Individual Protocols Under Microbiology Summer Training Program

1. DNA extraction and purification techniques | **Fee: Contact for fee**
2. Basic PCR for microbial DNA analysis | **Fee: Contact for fee**
3. Introduction to gel electrophoresis for DNA visualization | **Fee: Contact for fee**
4. Gene cloning basics and plasmid transformation | **Fee: Contact for fee**
5. Restriction digestion and ligation methods | **Fee: Contact for fee**
6. Water and soil sample collection for microbial analysis | **Fee: Contact for fee**
7. Identification of environmental microbes | **Fee: Contact for fee**
8. Biofilm formation and assessment | **Fee: Contact for fee**

9. Bioremediation basics and pollution control using microbes | **Fee: Contact for fee**
10. Techniques for analyzing microbial diversity | **Fee: Contact for fee**
11. Sample collection and preparation for clinical testing | **Fee: Contact for fee**
12. Introduction to ELISA for pathogen detection | **Fee: Contact for fee**
13. Antimicrobial susceptibility testing (AST) for clinical isolates | **Fee: Contact for fee**
14. Identification of common pathogens using biochemical tests | **Fee: Contact for fee**
15. Blood culture methods and pathogen isolation | **Fee: Contact for fee**
16. Microbial contamination testing in food samples | **Fee: Contact for fee**
17. Foodborne pathogen identification | **Fee: Contact for fee**
18. Introduction to HACCP and food safety standards | **Fee: Contact for fee**
19. Enumeration of spoilage organisms | **Fee: Contact for fee**
20. Shelf-life testing for microbial stability | **Fee: Contact for fee**
21. Fermentation techniques for microbial products | **Fee: Contact for fee**
22. Scale-up of microbial cultures in bioreactors | **Fee: Contact for fee**
23. Quality control for microbial products | **Fee: Contact for fee**
24. Isolation and identification of industrially relevant microbes | **Fee: Contact for fee**
25. Downstream processing for product recovery | **Fee: Contact for fee**
26. Introduction to microbial genome extraction | **Fee: Contact for fee**
27. 16S rRNA sequencing basics for microbial identification | **Fee: Contact for fee**
28. Bioinformatics basics for genomic data analysis | **Fee: Contact for fee**
29. Introduction to CRISPR and gene editing in microbes | **Fee: Contact for fee**
30. Whole-genome sequencing overview | **Fee: Contact for fee**
31. ELISA for detecting microbial antigens | **Fee: Contact for fee**
32. Western blotting basics for protein identification | **Fee: Contact for fee**
33. Antibody production in response to microbes | **Fee: Contact for fee**
34. Flow cytometry for microbial immunology | **Fee: Contact for fee**
35. Immunofluorescence techniques for microbial visualization | **Fee: Contact for fee**
36. Isolation of soil microbes for plant growth promotion | **Fee: Contact for fee**
37. Nitrogen fixation and nutrient cycling studies | **Fee: Contact for fee**
38. Biofertilizer production methods | **Fee: Contact for fee**
39. Testing microbial inoculants for soil health | **Fee: Contact for fee**
40. Pathogen detection in agricultural settings | **Fee: Contact for fee**
41. Protein extraction and purification from microbes | **Fee: Contact for fee**
42. Enzyme activity assays in microbial samples | **Fee: Contact for fee**
43. Metabolic pathway analysis | **Fee: Contact for fee**
44. Spectrophotometric analysis for microbial biochemistry | **Fee: Contact for fee**
45. Quantification of microbial products | **Fee: Contact for fee**
46. Good Laboratory Practices (GLP) in microbiology labs | **Fee: Contact for fee**
47. Calibration and maintenance of microbiological instruments | **Fee: Contact for fee**
48. Standard Operating Procedures (SOP) for microbiological testing | **Fee: Contact for fee**
49. Data recording and lab notebook management | **Fee: Contact for fee**
50. Quality control for microbial assays | **Fee: Contact for fee**

NTHRYS OPC PVT LTD Microbiology Summer Training Program

Please contact on +91-8977624748 for more details

Cant Come to Hyderabad? No Problem, You can do it in Virtual / Online Mode