Applied Microbiology Summer Training

Are you ready to take your understanding of microbiology to the next level? Join us this summer at NTHRYS Biotech Labs for an immersive and hands-on training program in Applied Microbiology. Our comprehensive summer training is designed to provide you with practical skills and real-world experience, making you adept at modern microbiological techniques. Under the guidance of industry experts, you will engage in cutting-edge research, participate in live demonstrations, and gain invaluable insights into microbial applications in various fields. Whether you are a student aiming to bolster your academic credentials or a professional looking to enhance your expertise, our training program offers a unique opportunity to advance your career and contribute to groundbreaking discoveries. Don t miss this chance to unlock your potential and become a part of the next generation of microbiologists. Secure your spot today at NTHRYS Biotech Labs

Summer Training in Applied Microbiology - Variant 1 - Environmental Microbial Techniques
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Importance of Environmental Microbial Techniques

Environmental microbial techniques are essential for monitoring and managing the impact of microorganisms in various ecosystems. These protocols help in assessing soil, water, and air quality, which is critical for environmental conservation and public health. By mastering these techniques, trainees can contribute to bioremediation efforts, pollution control, and sustainable agricultural practices. The training emphasizes the application of microbial methods to detect and mitigate environmental contaminants, ensuring a cleaner and safer environment. This comprehensive approach prepares participants for careers in environmental science, research, and industry.

1. Water Quality Testing
2. Soil Microbial Analysis
3. Air Sampling Techniques
4. Microbial Source Tracking
5. Microbial Diversity Analysis
6. Biogeochemical Cycling Assays
7. Pathogen Detection in Water
8. Microbial Community Profiling
9. Microbial Contaminant Degradation
10. Microbial Ecology Studies
11. Microbial Symbiosis Assays
12. Environmental DNA Extraction
13. Bioindicator Analysis

14. Microbial Phytoremediation
15. Microbial Soil Health Indicators
16. Pollutant Biodegradation Studies
17. Bioaerosol Monitoring
18. Marine Microbiology Techniques
19. Wastewater Microbiology
20. Microbial Bioreactors for Waste Treatment

5 Days Duration

Protocols 1, 2, 3, 4, 5

10 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8

15 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

20 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

30 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16

45 Days Duration

All protocols listed above

Fee Structure

Fee details in Rs per student					
Fee	5 Days	10 Days	20 days	1 Month	45 Days
Individual	12000	19000	25000	29000	38000
Group 2 - 4	11500	18000	24000	27000	36000
Group 5 - 7	11000	17500	23000	26000	35000
Group 8 - 10	10500	17000	22000	25000	34000

Statutory Note: NTHRYS Team can change the protocols, software, or tools used to achieve the

tasks linked to the above-mentioned approaches or protocols.

Summer Training in Applied Microbiology - Variant 2 - Environmental Microbial Techniques +

Importance of Environmental Microbial Techniques

Environmental microbial techniques are essential for monitoring and managing the impact of microorganisms in various ecosystems. These protocols help in assessing soil, water, and air quality, which is critical for environmental conservation and public health. By mastering these techniques, trainees can contribute to bioremediation efforts, pollution control, and sustainable agricultural practices. The training emphasizes the application of microbial methods to detect and mitigate environmental contaminants, ensuring a cleaner and safer environment. This comprehensive approach prepares participants for careers in environmental science, research, and industry.

1. Water Quality Testing
2. Soil Microbial Analysis
3. Air Sampling Techniques
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15. Microbial Soil Health Indicators
16. Pollutant Biodegradation Studies
17. Bioaerosol Monitoring
18. Marine Microbiology Techniques
19. Wastewater Microbiology
20. Microbial Bioreactors for Waste Treatment

5 Days Duration

Protocols 1, 2, 3, 4, 5

10 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8

15 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

20 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

30 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16

45 Days Duration

All protocols listed above

Fee Structure

Fee details in Rs per student					
Fee	5 Days	10 Days	20 days	1 Month	45 Days
Individual	12000	19000	25000	29000	38000
Group 2 - 4	11500	18000	24000	27000	36000
Group 5 - 7	11000	17500	23000	26000	35000
Group 8 - 10	10500	17000	22000	25000	34000

Statutory Note: NTHRYS Team can change the protocols, software, or tools used to achieve the tasks linked to the above-mentioned approaches or protocols.

Summer Training in Applied Microbiology - Variant 3 - Industrial Microbial Processes
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Importance of Industrial Microbial Processes

Industrial microbial processes are critical for the production of biofuels, pharmaceuticals, and other valuable bioproducts. These protocols enable the optimization and scaling up of microbial production processes, ensuring efficiency and cost-effectiveness. By mastering these techniques, trainees can contribute to advancements in biotechnology, bioengineering, and industrial microbiology. The training covers essential methodologies for microbial fermentation, bioreactor operation, and downstream processing. This comprehensive approach prepares participants for careers in industrial biotechnology, research, and development.

1. Batch Fermentation Techniques
2. Fed-Batch Fermentation Methods

3. Continuous Fermentation Processes
4. Downstream Processing
5. Bioreactor Design and Operation
6. Scale-Up of Fermentation Processes
7. Optimization of Fermentation Parameters
8. Enzyme Production and Purification
9. Bioethanol Production from Biomass
10. Biogas Production from Waste
11. Microbial Cell Factories
12. Production of Organic Acids
13. Bioreactor Monitoring
14. High-Density Cell Cultures
15. Immobilized Cell Systems
16. Solid-State Fermentation
17. Submerged Fermentation
18. Production of Biopolymers
19. Bioprocess Modeling and Simulation
20. Continuous Product Recovery

5 Days Duration

Protocols 1, 2, 3, 4, 5

10 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8

15 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

20 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

30 Days Duration

Protocols 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17

45 Days Duration

All protocols listed above

Fee Structure

Fee details in Rs per student					
Fee	5 Days	10 Days	20 days	1 Month	45 Days
Individual	19000	28000	36000	48000	55000
Group 2 - 4	18000	26000	34000	46000	53000
Group 5 - 7	16000	24000	33000	45000	52000
Group 8 - 10	15000	23000	32000	44000	51000

Statutory Note: NTHRYS Team can change the protocols, software, or tools used to achieve the tasks linked to the above-mentioned approaches or protocols.