



**CSIR  
INTEGRATED  
SKILL  
INITIATIVE**

## CSIR-NCL SKILL DEVELOPMENT PROGRAM

# "Food Safety And Quality Assessment"



### ABOUT COURSE

The Food Safety and Quality Assessment course focuses on isolating microorganisms from contaminated food and feed samples to assess microbial contamination and ensure food safety and quality. It covers culturing techniques, molecular identification of bacteria, fungi, and yeast. Also genomic DNA isolation, 16S/18S rRNA gene sequencing, PCR, and phylogenetic analysis. The course also includes Oxford Nanopore sequencing and methods for distinguishing closely related species and strains. It covers chromatography techniques for quantitative assessment of mycotoxins, antibiotics, and pesticide contamination. The course emphasizes HACCP for controlling food safety hazards, and food safety assessments through microbiological testing, chemical analysis, inspections, and adherence to regulations, all vital for protecting public health.

### COURSE CONTENT

This course focuses on the isolation and identification of microorganisms from contaminated food, using both phenotypic and molecular techniques for bacteria, fungi, and yeast. It covers 16S/18S rRNA gene sequencing and Oxford Nanopore sequencing. The course also explores chromatography principles, HPLC instrumentation, method development, validation, troubleshooting, and software for controlled operations. Practical training includes the quantitative assessment of mycotoxins, antibiotics, pesticide contamination, by-product analysis, method validation and statistical analysis to ensure food quality and safety.



### FOR WHOM

- Students
- Academic Researchers
- Industrial Professionals

### HOW TO APPLY

Application form is available at -  
<http://www.ncl-india.org/files/SDP/Default.aspx>

### PRIME INSTRUCTOR

**Dr. Koteswara Rao**

Senior Scientist  
Biochemical Sciences Division  
CSIR-National Chemical Laboratory  
**Area of Expertize :**

Microbiology & Molecular Biology

### COURSE DETAILS

**Duration**- 2 Weeks  
**Dates**- 03rd Feb to 14th Feb 2025  
**No. of Seats**- 15  
**Eligibility**- Masters (completed/ pursuing) in any science subject or equivalent  
**Course Fees** -  
Students - 5900 /-  
Faculty - 15000 /-  
Industrial Professional - 25000 /-

(The fees stated include 18% GST)  
Accommodation-2 week + 2 days with affordable charges

Here is the reason why  
**WHY CHOOSE US**



- More weightage on hands-on practice
- Interactive sessions
- Robust & sustainable training module
- Affordable fee structure
- Networking



<https://nclsdp.ncl.res.in/>



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