

## TRAINING FOR FOOD & BEVERAGE INDUSTRY

### FOOD BIOLOGIST

The overall goal of the **Food Biologist** training program is to provide the trainee with the skills they will need to provide appropriate food testing and management for a wide variety of food and beverage products.

### FOOD CHEMIST

The overall goal of the **Food & Beverage Chemist** training program is to provide the trainee with the skills they will need to provide appropriate food testing and management for a wide variety of food and beverage products.

### SCOPE OF THE TRAINING -

**Food & Beverage Biologist** apply their extensive knowledge of to analyze the microbial burden in food products and try to make processed foods healthier. Some may even use food genetics or molecular biology to develop ways to find food contaminates

**Food & Beverage Chemist** apply their extensive knowledge of to analyze the nutritional value of food, look for new food sources, and try to make processed foods healthier. Some may even use nanotechnology to develop ways to find food contaminates

## TRAINING SYLLABUS

### UNIT – 1 FOOD LAB SAFETY , STANDARDS , REGULATORY AND SOP'S

Law of Food Safety and Standards

Food Products Regulatory Bodies

Standard Operating Procedures in Food Analysis

### UNIT – 2 : QUALITY CONTROL AND QUALITY CHECKS IN FOOD MICROBIOLOGY

**Quality Control Checks in Food Microbiology** - New Methods , Comparison of Plate Counts , Duplicate Analysis ,

**Sterility Check** : Procedural Blank , Media Blank , Field Blank , Positive & Negative Control Cultures

**Total Coliforms Analysis in Food & Documentation of Coliform Data.**

### **UNIT - 3 - HANDS ON LEARNING ON MICROBIOLOGY TECHNIQUES**

**Aerobic Mesophilic Plate Count** – Preparation of Food homogenate , Dilution , Pour Plating , Incubation , Counting Colonies , Calculation , Result Analysis.

**Analysis of Aciduric Flat Sour Spore Formers in Food** –

### **UNIT 4 - DETECTION OF FOOD PATHOGENS BY PCR TECHNOLOGY**

**Introduction to PCR , Primer Designing & Selection , PCR Optimization & Troubleshooting , PCR Run for Reactions , Analysis of PCR Results**

**Detection of Food Pathogens by PCR**

### **UNIT 5 – DETECTION OF FOOD PATHOGENS BY REAL TIME PCR TECHNOLOGY**

**Real Time PCR Technology – Introduction to Real Time PCR , Primer Designing for Real Time PCR , Application of Real Time PCR in Food Genetics , Real Time PCR Run For Food Samples , Data Analysis**

## **FOOD CHEMISTRY & RESEARCH**

### **UNIT – 6 : QUALITY CONTROL AND QUALITY ASSURANCE**

**Quality Control Checks in Water** - Physical and Chemical Analysis , Initial Method Validation , On Going Method Validation , Laboratory Blanks , Duplicate Determinations , Calibrations , Q.C. Calculations , Q.C. Charts etc.

**Operation and Calibration of Meters** : pHMeter (Hanna , Thermo ) , Conductivity Meter , Dissolved Oxygen Meter , Spectrophotometer , Pipettes , Turbidity Meter etc.

### **UNIT 7 - HANDS ON LEARNING ON HPLC , GC , SPECTROSCOPY AND OTHER TECHNIQUES**

**Analysis of Food Samples by HPLC** – Basics of HPLC - Sample Preparation , Gradient Making , Parts of HPLC , Troubleshooting and Maintenance , Operating Procedure of HPLC , Run the sample in HPLC . Data Analysis

**Analysis of Food Samples by Gas Chromatography** – Basics of GC - Sample Preparation , Parts of GC , Troubleshooting and Maintenance , Operating Procedure of GC , Run the sample in GC , Data Analysis

**Analysis of Food Samples by Spectroscopy** – Basics of Spectroscopy - Sample Preparation , Calibration and Calibration Curve , Recovery Percentage etc.

**Analysis by Thin Layer Chromatography** – Sample Preparation , Solvent Selection , Spray Selection , Visualization and analysis of TLC bands.

#### **UNIT 8 - Biochemical Assay For Food Analysis**

**Analysis of Fat , Protein , Carbohydrate , Lipids , Sugars , Vitamins etc.**

**Analytical Method – HPLC , GC , Spectroscopy and other biochemical methods.**

#### **UNIT 9 – Analysis of Adulteration in Food Products**

**Analysis of adulteration in Fat & Oils**

**Analysis of adulteration in Pulses**

**Adulteration in Vegetables**

**Analytical Method – HPLC , GC , Spectroscopy and other biochemical methods.**

### **INFORMATION TO APPLY FOR THE PROGRAM**

#### **WHO MAY JOIN ?**

Students From Food Science , Biotechnology , Microbiology , Biochemistry , Life Science , Chemistry , etc.

**SELECTION CRITERIA :** First come first serve

**FEE FOR TRAINING PROGRAM :** Rs 25,000 / -

**DURATION :** 2 to 3 Months

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#### **APPROVAL OF THE TRAINING PROGRAM :**

**This training program is designed and approved by the organization Scientific Advisory Committee.**

#### **HOW TO APPLY –**

**Details of Documents :**

1. Any identity proof along with University / College Identity Card
2. Filled Registration form of **Allele Life Sciences Pvt. Ltd.** with photograph
2. Registration fee will be Rs 1000 / -
3. Registration fee may be paid through cheque / Demand Draft or On Line Transfer :

Cheque or Demand Draft will be in favor of “ **Allele Life Sciences Pvt. Ltd.** ” payable at Noida or Service Branch

**Details for on line Payment :**

Kindly write us for bank or UPI Details at : [allelelifesciences@gmail.com](mailto:allelelifesciences@gmail.com)

**For on Line Registration Send scan copy of all documents at : [allelelifesciences@gmail.com](mailto:allelelifesciences@gmail.com)**

**Note : Kindly send the receipt of the registration fee along with scan documents.**

**Those who pay through cheque or DD send all documents at following address :**

**Allele Life Sciences Pvt. Ltd.**

C - 59 , Sector - 10 , Noida

Uttar Pradesh - 201301 , IN

Ph.No : + 91-9891179928

**Note :** We will send confirmation at your email address withi 7 days.

**For Any other query mail at : [allelelifesciences@gmail.com](mailto:allelelifesciences@gmail.com) or Call at – 09891179928**

**Registration Form is Given at nest page**



Photograph

## Registration Form

**Name of Training Program :**

**Expected Date of Joining :**

**Candidate Details :**

Name: Mr./Ms. \_\_\_\_\_

Father's Name: \_\_\_\_\_

Address : \_\_\_\_\_

Contact No. : \_\_\_\_\_ Mobile No.: \_\_\_\_\_

Email: \_\_\_\_\_

Institution -

Qualification -

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**Terms & Conditions :**

1. The admission to training / internship programs will be confirmed after the payment of registration fee along with documents.
2. The registration fee deposited is completely non refundable.
3. The industrial training fee includes the cost of chemical , reagents and study material costs.
4. I will deposit the service charges as decided by the company at the time of joining date of training program.
5. Students have to bear their own boarding/lodging /conveyance charges. We facilitate students in finding proper paying guest arrangements.
6. The trainees will have to bring their own lab coat and wear them all the time in the campus.
7. Trainees are selected on first come first serve basis
8. Trainees will maintain adequate discipline inside the lab premises.

### DECLARATION

I \_\_\_\_\_ from \_\_\_\_\_

hereby declare that all statement/information given in the application form are true to the best of my knowledge and belief . I will strictly abide by the norms/lab etiquette during the training

Signature

Place: \_\_\_\_\_

Date: \_\_\_\_\_

**For office use only**