

TRAINING IN FORENSIC SCIENCE & LAW

Forensic science is a discipline that applies scientific analysis to the justice system, often to help prove the events of a crime. Forensic scientists analyze and interpret evidence found at the crime scene. That evidence can include blood, saliva, fibers, tire tracks, drugs, alcohol, paint chips and firearm residue etc.

The overall goal of the training program “ **TRAINING IN FORENSIC SCIENCE & LAW** ” is to provide the trainee with the skills they will need to provide appropriate Forensic findings as expert witnesses in the court of law.

SCOPE OF THE TRAINING -

Forensic Chemist apply their extensive knowledge of molecular biology to study the function and structure of genes. They test for DNA mutations related to a range of diseases and disorders. They may also serve as consultants for clinical geneticists during the diagnoses of various disorders .

Forensic Biologist identify and analyze defects that cause metabolic disorders.

Forensic Consultant provide mental and emotional guidance to patients with genetic disorders .

TRAINING SYLLABUS

UNIT – 1

Basics of Forensic Laboratory: : Evidence Collection methodology , Evidence containers ,

Lab safety and Procedures : Biological lab Safety , Chemistry Lab Safety ,

Forensic Record Maintenance : Understand the importance of the maintenance of forensic records from crime science to court , Forensic Record Formats ,

Documentation of Scientific evidence : Draft petition with the admission of scientific evidence , prosecution strategy ,

UNIT – 2

Extraction of DNA for Forensic Analysis - DNA , Mitochondrial DNA (Any probative biological sample that has been stored dry or frozen, regardless of age, may be considered for DNA analysis)

Quantitative & Qualitative Analysis of Nucleic Acid - DNA Electrophoresis , Gel Docking or imaging .

Quantitative analysis by spectrometer – For DNA – Measure Absorbance at 260 & 280 nm

Facilities Required For Unit – 2 :

Refrigerated Centrifuge , High Speed Refrigerated Centrifuge , DNA Speedvac Concentrator , Spectrophotometer ,Vortex Mixer , Dry Bath , Water Bath , Electrophoresis , Power Supply , Bio- safety Cabinet for RNA handling , Gel Documentation System .

UNIT 3 - Bioinformatics:

Methylation Primer Designing, Mutation Primer Designing , Selection of Restriction Sites, Virtual PCR, Bioinformatics tools & Techniques .

Facilities Required - Software for primer designing

UNIT 4 – PCR & Optimization for the Expression of Forensic Samples

Optimization of Conventional , Nested and PCR , PCR Multiplexing Methods , Run of Conventional PCR , Data Analysis .

Methods and Analysis of DNA Profiling through Molecular Markers: PCR analysis & DNA bar coding, Dendogram Generation, Similarity & Dissimilarity Matrix , Data Analysis .

Facilities Required for Unit – 4 : Real Time PCR, Thermocycler , Gradient Thermocycler , PCR Cabinet , PCR Pipettes , PCR Cabinet, Ice Flakes ,etc.

UNIT 5 – Method of Extraction of Forensic Samples:

Protein Precipitation & Dialysis , Solid Phase Micro Extraction (SPME) , Wet Digestion Method , Extraction of Drug form Urine / Blood , Chromatography

UNIT 6 - Spectroscopy and Chromatography Methods for Forensic Samples :

Spectroscopy of Forensic Samples : Basics of Spectroscopy , Calibration & Instrument Handling , Sample Preparation , Sample Processing , Data Analysis : Standard Curve and Data Interpretation , Method Development Analysis by Chromatography

Facilities Required for Unit 6 :

Spectrophotometer ,Vortex Mixer , Dry Bath , Water Bath , auto titrator , pH meter , SPME Extraction , Centrifugation , Microwave Digestion , Column Chromatography -

UNIT 7 - Chromatography Methods for Forensic Samples (HPLC & GC)

Size Exclusion Chromatography , Analysis with Thin Layer Chromatography (TLC) , Data Analysis

Analysis with HPLC : Basics of HPLC , Sample Preparation , Solvent Selection , Column Selection , Gradient Making etc. , Sample Processing by HPLC , Software Handling , Data Analysis

Analysis with GC : Basics of GC , Sample Preparation , Solvent Selection , Column Selection , Gradient Making etc. , Sample Processing by GC , Software Handling , Data Analysis

Facilities Required for Unit 7 :

HPLC , Gas Chromatography , SPME Extraction Columns , TLC Plate Viewer & Documentation Unit , Desiccator , TLC Sprayer etc.

Research Elective For Project Work : Participants may choose one area of interest -

- Forensic DNA Biology
 - Forensic DNA Chemistry
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INFORMATION TO APPLY FOR THE PROGRAM

WHO MAY JOIN ?

Students From Forensic Science, Biotechnology ,Biochemistry , Life Science , Chemistry etc.

SELECTION CRITERIA : First come first serve

FEE FOR TRAINING PROGRAM : Rs 10,000 / - (For 30 Days Training)
Rs 12,000 /- (For 45 Days Training + Project Work)

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

For on Line Registration Send scan copy of all documents at : 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 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 -

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