



# Industry Ready Training Forensic Science

## Our Benefit :



Get Certificate



On Time Training



100 % Hands on  
learning



+91-9891179928 ( WhatsApp Only )



allelelifesciences@gmail.com



www.allelelifesciences.com



## OUR PEDAGOGY

Our training programs are specially designed for the betterment of students career to help them capture knowledge on emerging technologies and to improve skills for Forensic Biology, Forensic Chemistry and Toxicology.



## WHY TRAINING ?

One of the main reasons why freshers find it difficult to get employment in the industry is the lack of hands-on experience. Our mission to get students industry-ready in their domain.

## WHO WILL BE BENEFITED

- Career in Forensic or Analytical Chemistry Lab
- You may consider as Pre Ph.D. Program

### DURATION & FEE :

- 3 Months
- INR 25,000

## HANDS ON EXPERIENCE ON MAJOR TOOL & TECHNIQUES:

- Nucleic Acid Extraction Techniques, PCR & Real Time PCR Analysis, STR Analysis, VNTR Analysis, STR by dHPLC Analysis
- Forensic sample extraction techniques, Chemical Titrations, Spectrophotometric Analysis. Analysis by FPLC, Ion Exchange, Affinity Chromatography, Microplate Assay, ELISA, Immuno Fluorescence Detection by HPLC-FLD
- HPLC - PDA Analysis , TLC Analysis and other Forensic Analytical Procedures
- Gas Chromatography Analysis of volatile or semi volatile compounds of forensic samples.



# FORENSIC DNA TECHNOLOGY

## Basics of Forensic, DNA Evidence & DNA Extraction

- Unit 1: Lab safety and Forensic Procedures , Chemical & Reagent Preparation
- Unit 2: Preparation of Extract from Bloodstains, Soft Tissues Precipitin Tube Method
- Unit 3: Double Diffusion, Cross Over Electrophoresis & Staining
- Unit 4: Recovery of High-Molecular-Weight DNA and Forensic Specimens
- Unit 5: DNA extraction from Hair



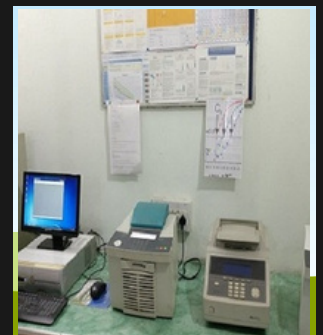
## High Molecular Weight DNA & RNA Extraction

- Unit 6 : DNA extraction from Cigarette Butts & Postage Stamp
- Unit 7: DNA recovery from dried blood sample
- Unit 8: Mitochondrial DNA extraction of forensic sample
- Unit 9: RNA recovery from blood sample
- Unit 10: First Strand cDNA Synthesis



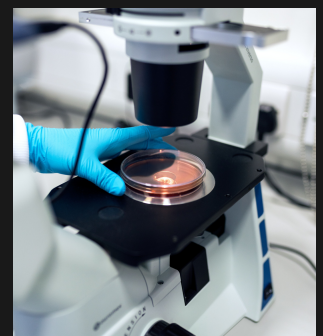
## Minisatellites or Variable Number Tandem Repeats (VNTRs)

- Unit 11: Basics of PCR, Optimisation & Setup for forensic application
- Unit 12: Digestion of DNA with a restriction endonuclease
- Unit 13: Southern Blot Analysis & Hybridization
- Unit 14: VNTRs Analysis - Phase I
- Unit 15: VNTRs Analysis - Phase II



## Single Nucleotide Polymorphisms (SNPs) Analysis

- Unit 16: Procedure for genotyping single nucleotide polymorphisms - Phase I
- Unit 17: Procedure for genotyping single nucleotide polymorphisms - Phase II
- Unit 18: Total RNA extraction & mRNA Synthesis
- Unit 19: First Strand cDNA Synthesis
- Unit 20: SNP Analysis by Real Time PCR



## Forensic DNA Phenotyping & Karyotyping

- Unit 21: Data Analysis of Real Time PCR for SNP Analysis
- Unit 22: SNP analysis by HPLC ( PCR Product )
- Unit 23: Forensic DNA Phenotyping
- Unit 24: Y Chromosome analysis by Karyotyping - Phase I
- Unit 25: Y Chromosome analysis by Karyotyping - Phase II



# FORENSIC CHEMISTRY

## Basics of Techniques required in Forensic Chemistry

Unit 26: Lab safety and Forensic Procedures , Chemical & Reagent Preparation

Unit 27: Chemical Analysis Procedures - Titrations, Viscosity, Refractive Index etc

Unit 28: Determination and basics of Spectrophotometry

Unit 29: Determination by Thin Layer Chromatography

Unit 30: Determination by High Performance Liquid Chromatography & Gas Chromatography



## Analysis of Cement, Mortar, Concrete & Metals

Unit 31: Detection and estimation of cement in crime cases

Unit 32: Determination of mortar in crime cases

Unit 33: Determination of concrete in crime cases

Unit 34: Test of Gold Polish in Cheating Cases

Unit 35: Test For Fake Silver in cheating cases



## Analysis of Fat & Oils

Unit 36: Analysis of Ground Nut & Sesame Oil

Unit 37: Analysis of Argemone oil in edible oils

Unit 38: Analysis of Mineral Oil in edible oils

Unit 39: Detection of rancidity in edible oil

Unit 40: Detection of acid & colour in edible oil



## Analysis of Trap Cases & Drug Analysis

Unit 41: Test of Phenolphthalein in Trap cases - Basic chemical method

Unit 42: Test of Phenolphthalein by advance techniques

Unit 43: Analysis of Anthracene

Unit 44: Analysis of alcohol in liquors/drinks

Unit 45: Determination of drug with HPLC analysis



## ANALYSIS OF ALCOHOL IN LIQUORS/DRINKS

Unit 46: Qualitative Analysis of Liquor

Unit 47: Test for Methanol

Unit 48: Quantitative Analysis of Liquor

Unit 49: Preparation of method for Gas Chromatography

Unit 50: Analysis of sample by Gas Chromatography





# FORENSIC TOXICOLOGY

## Techniques required in Forensic Toxicology

Unit 51: Lab safety and Forensic Toxicology Procedures

Unit 52: Microscopic examination of leaves

Unit 53: Analytical procedure of THC (Sigma Aldrich )

Unit 54: Analysis of THC by Thin Layer Chromatography

Unit 55: Determination of THC with High Performance Liquid Chromatography



## Solvent Extraction, Dialysis and Ion Exchange Chromatography

Unit 56: Classification of poison & poisoning, factors affecting the intensity, diagnosis and medico legal aspects of cases.

Unit 57: Solvent Extraction in Forensic Toxicology

Unit 58: Dialysis for Forensic analysis

Unit 59: Ion Exchange Chromatography

Unit 60: Solid Phase Micro Extraction of Forensic Sample



## Extraction of Toxic compound in Forensic Matrices

Unit 61: Extraction of Pesticides in Urine & Blood

Unit 62: Extraction of Pesticides in Fruits & Vegetables

Unit 63: Extraction of Drugs and Poisons of Plant Origin in Biological Matrices

Unit 64: Solid Phase Extraction of Drugs from Urine

Unit 65: Cleanup using Alumina and Silica Column



## Analysis of Forensic Toxicology Samples

Unit 66: Analysis of Plant toxicants by different techniques

Unit 67: Analysis of Plant Pesticide with analytical techniques

Unit 68: Analysis of toxic compound in Urine sample

Unit 69: Analysis of toxic compound in blood

Unit 70: Analysis in tissue sample



**Cost of Training :** INR 25,000 / -

**Duration :** Three Months



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## PERSONAL INFORMATION

Full Name :

Address :

Nationality :  Institution ( If Any )

Phone :  Email :

Name of Training :

## 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 Rs 1000/- deposited is completely non refundable.
3. I will deposit the service charges as decided by the company in brochure at the time of joining date of training program.
4. Students have to bear their own boarding/lodging /conveyance charges.
5. Trainees will maintain adequate discipline & lab safety inside the lab premises.
6. Company will not be responsible for any medical, legal issues during the internship tenure.

## Declaration

I  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 terms & conditions, norms, lab etiquette during the training .

Pay Registration Fee for confirmation of seat for training program.  
Send the copy of the form, payment detail and any identity proof at :  
[info@allelelifesciences.com](mailto:info@allelelifesciences.com)



[allelelifesciences@upi](mailto:allelelifesciences@upi)

## THANK YOU FOR REGISTRATION

We will send your training confirmation letter at your Email ID given in the registration form

Trainee Signature

## More Information :

If you do not receive confirmation letter kindly WhatsApp your details at:  
9891179928

[www.allelelifesciences.com](http://www.allelelifesciences.com)



## CONTACT US —

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## OUR SERVICES

### GENOMICS SERVICES

- Sequencing Services
- PCR & Real Time PCR Services
- Gene Cloning
- Genotyping Services
- Epigenetic Analysis
- Microbiome Analysis
- Nutrigenomics Analysis
- Plant Genomics

### PROTEIN CHEMISTRY

- Protein Purification
- Protein Analysis
- Peptide Synthesis
- Peptide Modification
- Peptide Labelling
- Antibody Purification
- Enzyme Production
- Enzyme Analysis

### BIOLOGICAL ASSAY

- In-Vitro Cell Assay
- Microbial Assay
- Antioxidant Assay
- Oxidative Stress Assay
- Toxicity Assay
- Nanotechnology Assay
- Bio-Chemical Assay
- Immunology Assay

### ANALYTICAL SERVICES

- HPLC Analysis
- GC Analysis
- Mass Spectrometry Analysis
- Vitamin Analysis
- GMO Analysis
- Amino Acid Analysis
- Allergen Analysis
- Trace Analysis

## OUR PRODUCTS

- Molecular Biology Reagents
- Biochemical Analysis
- Protein Analysis Reagents
- Cell Culture Products
- Plant Research Products
- Lab Equipment