HISTORY

The setting of Forensic Science Laboratory, Punjab was sanctioned by the Government of Punjab in the year 1976. The Laboratory started functioning in respect of scientific examination of clue material received from various types of crime scenes in the state of Punjab to link the suspect with the crime from the year 1981. In spite of the acute shortage of space and funds, the laboratory with its efficient scientific staff has been able to cope up with the challenging task of examination of cases pertaining to different crime, including the terrorist crime. This has been possible only with the co-operation of the scientific institutes like instrumentation section of Panjab University, Punjab Engineering College, Post Graduate Institute of medical Education & Research, IMTECH, CSIO,TBRL and CFSL all situated at Chandigarh, which have provided the facilities for carrying out certain tasks. Forensic Science Laboratory, Punjab need special attention for its proper establishment for the reason that criminals/terrorists all over the world have become highly technical and are using most modern technology and equipments in committing crimes which hinder their identification.

LOCATION

Forensic Science Laboratory, Punjab is situated at Phase-IV, S.A.S. Nagar, Punjab.

ORGANISATIONAL SET UP

Forensic Science Laboratory, Punjab, functions under the control of ADGP/Crime, Punjab. Forensic Science Laboratory, Punjab has 48 sanctioned technical posts and 28 posts of ministerial staff as under:

<table>
<thead>
<tr>
<th>TECHNICAL STAFF</th>
<th>Designation</th>
<th>No.of sanctioned posts</th>
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<tbody>
<tr>
<td>1.</td>
<td>Director</td>
<td>1</td>
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<tr>
<td>2.</td>
<td>Assistant Director</td>
<td>7</td>
</tr>
<tr>
<td>3.</td>
<td>Scientific Officers</td>
<td>9</td>
</tr>
<tr>
<td>4.</td>
<td>Scientific Assistant</td>
<td>11</td>
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<tr>
<td>5.</td>
<td>Laboratory Assistants</td>
<td>11</td>
</tr>
<tr>
<td>6.</td>
<td>Laboratory Attendants</td>
<td>9</td>
</tr>
</tbody>
</table>
MINISTERIAL STAFF

1. Assistant Incharge 1
2. Sr. Assistant 2
3. Jr. Scale Stenographer 5
4. Steno-typists 3
5. Clerks 4
6. Peon 6
7. Constable driver 5
8. Sweeper 1
9. Sweeper (part time) 1

WORKING

Forensic Science Laboratory aims at:
1. Analysis of the crime exhibits and reporting there upon.
2. Expert evidence in courts.
4. Research and development in the field.
5. Imparting expert lectures/training.

DIVISIONS

Forensic Science Laboratory, Punjab, Phase-IV, S.A.S. Nagar is headed by a Director, assisted by 7 Assistant Directors and comprises following divisions:-

1. Ballistics
2. Physics
3. Documents
4. Toxicology
5. Serology
6. Chemistry
7. Biology
8. Photography

INTERNAL ADMINISTRATION OF DIVISIONS

Each division is headed by one Assistant Director (except Photography division where scientific officer heads the division) assisted by one Scientific Officer, one Scientific Assistant, one Lab Assistant and one Laboratory Attendant.
TYPES OF CASES EXAMINED

BALLISTIC DIVISION

The case related to Arms Act in which firearms and ammunitions are received and examined in this division. In the cases opinion regarding working condition of firearms, their types and type of ammunition is given. The fired cartridges/bullets are linked to the weapons.

SCIENTIFIC EQUIPMENTS AVAILABLE

1. Stereo Microscope.
2. Leitzlarge Forensic Comparison Microscope.
4. Bullet speed meter.
5. Comparison Microscope.

PHYSICS DIVISION

Physics division undertakes the examination of cases related to paints, glass, soil/dust, telegraphic wires, lottery tickets, restoration of original number, tool marks, track marks(footwear prints) etc.

SCIENTIFIC EQUIPMENTS AVAILABLE

1. U.V. Spectrograph.
2. Zoom Stereo Microscope.
4. Density Gradient.
5. Senior Kelvin Bridge.
7. Sieve shaker.
8. Digital Refractrometer.
9. Hot Air Oven
11. Over Head Projector.
13. Slide projector.
14. Fourier Transform Infra Red Spectrometer(FTIR)
15. Fume hood.
16. Building material testing equipment.
17. Polishing Machine.
18. Silver projection screen
19. Soil and water analysis kit.
20. X-Ray Analyzer (EDXRF Spectrometer).
21. GRIM (Glass Refractive Index Measurement).

**DOCUMENT DIVISION**

In the documents division cases of handwriting, typewriting paper, pen/pencil, inks, charred documents, alteration, addition, obliteration and decipherment of invisible writing etc are examined.

**SCIENTIFIC EQUIPMENTS AVAILABLE**

6. U.V.Lamp.
7. Stereo Microscope.
8. VSC-1 with DIPs (Video Spectral Comparator-1) with Digital image processing system.
10. ESDA (Electro-Static Detection Apparatus).
12. V.S.C.-2000/HR.

**TOXICOLOGY DIVISION**

The cases related to charas, Ganja, Bhang, Opium and its derivatives, other narcotics drugs and poisons etc. are examined in the division.

**SCIENTIFIC EQUIPMENTS AVAILABLE**

1. GLC Perkin Elmer F-II Chromatograph.
2. U.V.Spectrophotometer, Sp 8000-Pye, Unicam
3. Electric Agate pestle Mortar.
4. Muffle Furnace
5. Mixer cum Grinder
6. Centrifuge
7. Deep Freezer
8. Fume hood
9. HPLC
10. Magnetic stirrers
11. Thin Layer Chromatography Apparatus
12. Infra-red Spectrophotometer
13. Melting Point Apparatus.
14. U.V.Cabinet
15. Hot Air Oven
16. Electronic Balance
17. G.C.M.S.

SEROLOGY DIVISION

The cases pertaining to the examination of body fluids for their origin and grouping are examined in Serology division.

SCIENTIFIC EQUIPMENTS AVAILABLE

1. Electrophoresis Equipment
2. Stereo Microscope
3. Cold Centrifuge
4. ultra centrifuge
5. Ordinary Centrifuge
6. Water Distillation Plant
7. Balance
8. Oven
9. Refrigerator
10. Stirrers
11. Microwave oven
12. Vortex/shaker
13. Micro centrifuge
14. Electronic Balance

CHEMISTRY DIVISION

The cases related to Trap, Liquor, Acid throwing, Dowry deaths and arson etc. are being examined in Chemistry division.

SCIENTIFIC EQUIPMENTS AVAILABLE

1. Spectronic-70 (Bausch & lomb)
2. Flash Point Apparatus.
3. Ph meter
4. Double distillation water distillation plant
5. Mettler H 80 Electronic Analytical Balance
6. Tullu Pump  
7. Melting Point Apparatus  

**BIOLOGY DIVISION**

The cases pertaining to the examination of hair, cloth, teeth, bones, blood and other body fluids and plants are examined in the Biology division.

**SCIENTIFIC EQUIPMENT AVAILABLE:**

1. Compound Microscope.  
2. Stereo Microscope  
3. U.V.Lamp Cabinet  
4. Centrifuge Machine  
5. Microtome  
6. Electronic Balances-2  
7. Human skeletons-2  
8. Oven  
9. Incubator  
10. Stirrer  
11. Auto-Clave machine  
12. Deep freezer  
13. Portable U.V.Equipment  
14. Refrigerator  
15. Ermascope Projection Microscope

**PHOTOGRAPHY DIVISION**

Scientific Photography of the crime exhibits from all the Divisions of Forensic Science Laboratory is carried out and positives prints are prepared for evidentiary purposes, in this division along with photography coverage of crime scene.

**SCIENTIFIC EQUIPMENTS AVAILABLE**

1. Camera  
2. Enlarger  
3. Printer  
4. Allied Accessories
MODE OF RECEIPT OF EXHIBITS AND DESPATCH OF REPORTS

The exhibits for examination are received in the laboratory from district SSsP in sealed cover along with necessary documents through special messengers. In rare document cases the sealed exhibits are also received through registered post.

After examination, information for collection of report is sent to the concerned SSP, who deputes special messengers for the purpose under proper authority letter.

TEACHING OF SCIENTIFIC AIDS

A Scientific Officer, a Scientific Assistant and two Laboratory Assistant have been deputed for teaching the police personnel on the subject of scientific aids in the Criminal investigation at Punjab Police Academy Phillaur.

Senior Scientists of main Forensic Science Laboratory, Punjab also deliver special lectures at CID Training School, Punjab Police Chandigarh. Some Special lecture for senior classes are also being delivered by the senior scientists to the trainees at Punjab Police Academy, Phillaur, M,Sc students of Punjabi University, Patiala and trainees of National Institute of Criminology and Forensic Science Delhi, Senior Scientists of Forensic Science Laboratory, Punjab are also involved in setting of question papers, marking the answer sheets and conducting practical examination on the subject in respect of Post Graduate courses in Forensic Science, run by Universities.

POWERS AND DUTIES OF ITS OFFICERS AND EMPLOYEES:

Following are the duties of the officers/officials of the scientific staff of State Forensic Science Laboratory, Punjab, Phase-IV, S.A.S. Nagar.

DIRECTOR

1. Examination, evaluation, comparison of clue materials and to submit scientific reports.
2. To testify or give evidence before judicial/semi-judicial/inquiry authority as and when required.
3. Examination of scene of crime and submission of reports.
4. Research in Forensic Science and related fields.
5. Teaching and training of IOs/NGOs of Police Prosecution and Judiciary in Forensic Science.
6. Any other scientific and Administrative work assigned by the ADGP/Crime, Director General of Police, Punjab.

Besides above duties, he is the head of the institution as well as controlling officer and has to perform duties related to it. He has to manage all the scientific matters for the overall scientific development of the institution for the incorporation of new technology.

**ASSISTANT DIRECTOR**

1. Examination, evaluation, comparison of clue materials and to submit scientific reports.
2. To testify or give evidence before judicial/Semi-judicial/Inquiry authority to and when required.
3. Examination of scene of crime and submission of reports.
4. Research in Forensic Science and related fields.
5. Teaching and training of personals in Forensic Science and related fields.
6. He/she will be responsible for efficient working of the divisions and expeditious disposal of work/cases pertaining to the divisions by giving quality reports.
7. He/she will render all assistance to the D/FSL in updating and introducing new technologies in the division.
8. Any other work assigned by senior officers/Govt. He/she is Divisional Incharge of his/her division. He also supervises and guide the scientific and technical staff of his division concerned in administrative and scientific matters.

**SCIENTIFIC OFFICER**

1. Examination, evaluation, comparison of clue materials and to submit scientific reports.
2. To testify or give evidence before judicial/semi-judicial/Inquiry authority as and when required.
3. Examination of scene of crime and submission of reports.
4. Research in Forensic Science and related fields.
5. Teaching and training of personals in Forensic Science and related fields.
6. He/she will be responsible for efficient working of the divisions and expeditious disposal of work/cases pertaining to the divisions by giving quality reports.

7. He/she will render all assistance to the D/FSL in updating and introducing new technologies in the divisions.

8. Any other work assigned by senior officers/Govt. He/she is also Incharge scientific unit of staff working under him/her and also has to guide and supervisor the unit.

**SCIENTIFIC ASSISTANT:**

1. Examination, evaluation, comparison of clue materials and to submit scientific reports, if covered under section 45 of Evidence Act.
2. To assist the officers/experts in examination of scene of crime and exhibits in the laboratory.
3. Assistance in research in Forensic Science and related fields under the supervision of experts.
4. Assistance in practical demonstration during teaching and training.
5. Any other work assigned by the senior officers.
6. He/she will also be assist in keeping the laboratory and equipments in order for scientific examination and shall help in expeditious disposal of work/cases pertaining to the division and also to help in the preparation of quality reports.
7. He/she will also render all assistance to the senior officers in the division in updating and introducing new technology in the division.

**LABORATORY ASSISTANT**

1. He/she is required to assist SA/SO/AD and Director in Examination, evaluation, and comparison of clue material especially for systematic arranging of exhibits and reagents.
2. To maintain register of the division concerned for making entries of the exhibits/cases received in the division. He/she also has to maintain all the records of chemical/glassware and equipments and to prepare update whenever required.
3. To perform other duties assigned by senior officers.

**LABORATORY ATTENDANT:**

1. To clean the laboratory tables/apparatus sinks, shelves, furniture and other items in the division.
2. To hold and carry exhibits, glass apparatus, reagents from where required. To cut open/seal the exhibits of the division in the presence of experts and to carry them from one Division to another or to crime branch.

3. To perform any other duties assigned by senior officers for the cleanliness of the laboratory as a whole and for carrying materials and other items for the functioning.