



Information Brochure

All India Forensic Science Entrance Test



AIFSET 2022

Are You Interested In Pursuing A Career In The Field Of Forensic Science?
Are You A Person Who Is Interested To Solve Crimes By Looking Closely
Through Evidence And Records?
Apply Now for AIFSET

What is AIFSET?

The All India Forensic Science Entrance Test (AIFSET-2022) is a national-level entrance test to enroll in the forensic science courses of its various participating universities. Candidates who are interested in pursuing a career in this field can apply to the course through this examination. The duration of the course is three years for the Bachelor of Science program & two years for the Master of Science program.

About The Course

B.Sc Forensic Science

is a three-year undergraduate program for individuals who are interested in pursuing a career in Forensic Science. The course mainly trains students to understand and analyze a criminal activity and/or a crime scene. Forensic Science is mostly a crime-scene based science, but graduates of forensic science are also consulted in civil cases such as proving the validity of a signature on a will or an important document. Professionals in forensic sciences are also consulted for any issue where the people involved could be cutting corners or performing illegal activities.

Forensic Science is broadly classified into three groups: Medical Science, Laboratory Science and Field Science.



About The Course

Medical Data Science includes forensic pathology, psychiatry, psychology, forensic medicine and ontology.

Laboratory Sciences includes chemistry, biology, toxicology, ballistics, fingerprints, suspected documents, and marks & impressions.

Field Sciences include crime scenes investigation which incorporates areas such as fire and explosion scenes and secret drug laboratories.

M.Sc Forensic Science

The Master of Science: Forensic Science course is a two-year undergraduate program for individuals who are interested in pursuing a career in Forensic Science. The course deals with the study of crime investigations. It provides training to students that include analyzing, identifying suspects through materials found on crime locations. It is a course that develops the students for the crime scene and makes them analyze and handle the required materials for the investigation of a crime scene. The postgraduate Forensic Science course consists of both core and elective subjects depending on the specialization sought.

Some common M.Sc Forensic Science subjects are Transport Phenomena, Chemical Engineering Computing, Advanced Thermodynamics, Chemical Reactor Engineering, and Design, etc.



Scope & Career in Forensic Sciences

Government Sector

Police Department, Crime Branches, CBI, CID, Forensic Science Laboratories, IB, Banks, Defense/Army, Courts, Quality Control Bureau, Narcotics Dept. , Universities, Hospitals, Organisations etc.

Private Sector

Detective Agencies, Banks, Insurance Companies, Universities, Hospitals, Security Services Agencies, Helpful to lawyers/Advocates, Law Firms, Private Companies, Own Private Practice etc.

Job Titles / Posts

Forensic Expert, Forensic Scientist, Forensic Investigator, Crime Scene Investigator, Handwriting Expert, Document Expert, Document Examiner, Fraud Examiner, Forensic Analyst, Scientific Officer, Security Expert, Forensic Consultant, Detective, Investigating Officer, Teacher/Professor, Crime Reporter, Forensic Engineer, Forensic Psychologis, Fingerprint Expert, Law Consultant, Government Examiner, Instructor, Genetics Expert, Environment Analyst, Technicians, Forensic Medical Examiners, Technician etc.

Facts & Figures

SHORTAGE OF FORENSIC EXPERTS IN INDIA AND SCOPE-

According to crime statistics of "Bureau of Police Research and Development (BPRD)" - A total of 19,89,673 IPC crimes were reported in the country as against 18,78,293, showing an increase of 5.9 percent.

According to Hindustan Times – Over three million cases are pending in India's 21 high courts, and an astounding 26.3 million cases are pending in subordinate courts across the country.

At the same time, there are almost a quarter million under-trials languishing in jails across the country. Of these, some 2,069 have been in jail for more than five years, even as their guilt or innocence is yet to be ascertained.

There are lot of cases which need not always go to the police or courts. Most experts agree that India faces an acute shortage of trained Forensic Experts and Scientists in many Forensic Areas and Crime Investigation.

Forensic science is an applied science having more than 27 sub branches. This subject is concerned with application of scientific principles / techniques for the crime investigation. Any science used for the purposes of the law is a forensic science.

For more Details Please don't forget to visit- <http://www.aafs.org/choosing-career> AND <http://www.aafs.org/current-job-openings>

Forensic scientists handle various clues collected from crime scene and use latest and advanced techniques to convert these clues into evidences which are later produced in court for prosecutions of the criminals.

As there is increase in the rate of organized crime the task of Forensic scientists is becoming more tough, challenging and adventurous.

Forensic science is a highly remunerative career options for youngsters.

There is an acute shortage of qualified Forensic Experts, Scientists and Investigators in the India. Forensic Scientists help to reduce the number of cases entering the overloaded court system by assisting the decision-makers before a case reaches the court. So, there is wide scope for jobs, private work, own practice etc

Syllabus | B.Sc Forensic Science

Unit I

Living And Nonliving
Genetic Basis Of Inheritance
Origin And Evolution Of Life
Human Disorders
Animal Physiology

Unit II

Cell Structure And Function
Plant Physiology
Reproduction In Plants
Ecology And Ecosystems

Unit III

Units And Measurements
Mechanics
Heat Transfer
Light And Sound
Electricity And Magnetism
Modern Physics

Unit IV

The Atomic Structure
Chemical Bonding
States Of Matter
Mixtures, Solutions And Solubility
The Periodic Table
Water And Organic Compounds In
The Environment

Unit V

Forensic Science: Definition And History
Definition And Types Of Crime
Police Organization
Crime Scene
General Awareness And GK

Syllabus | M.Sc Forensic Science

INTRODUCTION TO FORENSIC SCIENCE

Definition, History, Development And Scope Of Forensic Science In India. Basic Principles Of Forensic Science And Its Significance, Organization And Functioning Of State And Central Forensic Science Laboratories, Ethics In Forensic Science

PHYSICAL EVIDENCES

Definition, Types, Class And Individual Characteristics, Different Searching Methods For Locating Physical Evidence At The Scene Of Crime, Chain Of Custody.

FUNDAMENTAL OF POLICE

Historical Development Of The Police System In India. Police In The Indian Constitution. Objective Of Police, General Organization Of Police At State & Range Level. Police Organization Under Central Government: General Information, Structure And Function Of A. [] BSF [2] Assam Rifles [3] CRPF [4] CrSF [S] RTBp [6] NSG B. [1] BPR & D [2] CBI [3] IB [4] RAW [5] NCRB T6I NrCFS T7I NpA [8] Ur Police Force.

SCENE OF CRIME

Meaning, Types And, Protection Of Scene Of Crime, Crime Scene Documentation- Note Taking, Videography, Photography And. Sketching Methods, Importance Of Photography, General Guidelines, Admissibility In Court, Various Forms Such As Videography.

CRIME SCENE MANAGEMENT AND RECONSTRUCTION

Elements Of Crime Scene Management: - Information Management, Technology Management, Man-Power Management & Logistic Management. Introduction To Crime Scene Reconstruction, Nature Of Reconstruction, Basic Principles For Physical Evidence And Reconstruction (Recognition, Identification, Individualization And Reconstruction), Stages In Reconstruction, Types Of Reconstruction, Pattern Evidence

In Reconstruction (Bloodstain Pattern Analysis For Reconstruction, Glass Fracture Patterns, Fire Burn Patterns, Tire And Skid Mark Patterns), Writing A Reconstruction Report.

CHEMICAL SEPARATION AND INSTRUMENTAL TECHNIQUES

General Understanding Of: Distillations, Sublimation, Crystallization, Solvent Extraction.

Chromatographic Techniques: Definition, Different Classification Like- According To Mode, Principle, Stationary Phase, Etc., Brief Idea About Column Chromatography, Paper Chromatography, Thin Layer Chromatography, Gas Liquid Chromatography, Liquid Chromatography, Hyphenated Chromatography As- LC-MS, GC-MS Etc.

Electromagnetic Spectrum & Spectroscopic Methods - Principle, Apparatus, Procedure & Importance: Emission Spectroscopy, Atomic Absorption Spectroscopy, UV Spectroscopy, Electron Spectroscopy, Raman Spectroscopy, IR & FTIR Spectroscopy.

General Idea About: Neutron Activation Analysis, Mass Spectrometry.

Electrophoresis- Principle, Types, Equipment And Processing, Immune Electrophoresis, Analysis Of Proteins By Electrophoresis And Their Detection.

FINGER PRINTS, DOCUMENTS AND OTHER IMPRESSIONS

Fingerprints: History, Types Of Fingerprints, Type Of FingerPrint Patterns, Different Classifications, Location And Preservation Of Fingerprints, Development Of Latent Prints By Physical And Chemical Methods, Matching Of Fingerprints.

Documents: Definition Of Questioned Documents, Types Of Documents, Types Of Writing Instruments Their Characteristics And Examination, Paper And Its Examination, Basic Tools Needed For Forensic Document Examination- Ultraviolet, Visible, Infrared, And Fluorescence Spectroscopy, Photomicrography,, Microphotography, Visible Spectral Comparator, Electrostatic Detection Apparatus.

Hand Writing: Hand Writing And Its Characteristics, Factors Affecting Hand Writing, Samples For Comparison, Comparison Of Hand Writings, Disguised And Indented Writings And Their Detection, Typed And Computer Generated Documents, Their Comparison, Alteration In Documents And Their Detection, Foot & Shoe Prints, Methods Of Their Preservation And Examination, Tyre Marks And Track Marks And Their Examination.

FORENSIC BIOLOGY AND SEROLOGY

Brief Description And Function Of The Human Digestive System, Respiratory System, Circulatory System. Nervous System. Reproductive System. Structure, Composition And Examination Of Biological Fluids Like- Blood And Bloodstains, Seminal Stains, Saliva, Urine, Pus, Feces Etc

Hair And Fiber: Hair Anatomy, Collection, Examination Of Hairs From Animal And Human Origin. Types Of Fiber And Their Properties, Examination Etc.

Forensic Botany: Introduction, Nature & Scope, Woods & Their Identification And Matching, Diatoms And Their Forensic Significance In Drowning Cases, Study And Identification Of Pollen Grains.

D N A: Structure Of DNA, Polymorphism In DNA, General Idea About RFLP And PCR Methods Of Biological Fluid Analysis, Merits And Demerits Of RFLP And PCR Advanced Methods For Forensic DNA Examination Etc.

FORENSIC TOXICOLOGY AND DRUG ANALYSIS

Poison And Types Of Poisoning, Action Of Poison, Factors Modifying The Action If Poison, Extraction, Isolation And Clean-Up Procedures- For Non-Volatile Organic Poison, Volatile Poisons, Toxic Cations Or Metallic Poisons, Toxic Anions From Viscera, Drugs, Botanical Evidence, Biological Evidence Etc.

General Idea And Examination Of Opium, Semi - Synthetic Opiates, Cannabis Drugs Such As Bhang, Ganja And Charas, LSD And Amphetamine, Important Benzodiazepines, Phenothiazines, Barbiturates Etc. Animal Poisons Like Snake, Cantharides, Bees, Wasp Etc.

POLICE SCIENCE

Definition & Scope. Who Is An Investigator, Investigator & His Qualities, General Guidelines For Investigator, Interview Of Witness, Interrogation Of Suspect

FORENSIC MEDICINE

Meaning And Scope, Identification Of A Person: Through All Factors In Fixing Identity, Post-Mortem Examination (Autopsy) (Types Of Autopsy, Objectives, Procedures), Meaning & Modes Of Death, And Their Characteristics, Signs Of Death And Post-Mortem Changes. Wounds And Their Characteristics, Injuries Due To Heat, Lighting, Electricity And Radiation, Firearm Injuries, Differentiation Between Ante-Mortem And Post-Mortem Wounds.

GENERAL CHEMISTRY

Photochemistry- Interaction Of Radiation With Matter, Difference Between Thermal And Photochemical Processes, Laws Of Photochemistry, Grothus -Drapers Law, Stark - Einstein Law. Jablonski Diagram, Description Of Fluorescence, Phosphorescence, Nonradiative Processes, Quantum Yield, Photosensitized Reactions, Energy Transfer Processes Etc.

Organic Chemistry- Structure And Bonding: Hybridization, Bond Length And Bond Angles, Bond Energy, Localized And Delocalized Chemical Bond. Structure And Characteristics Of Alkane, Alkene, And Cycloalkane, Alcohol, Phenol, Ethers, Aldehyde, Ketone, Carboxylic Acid Etc.

Inorganic Chemistry- Trends In Periodic Table And Applications In Predicting And Explaining The Physical And Chemical Behaviors, Definitions Of Acid And Base, Classification Of Acids And Bases, Essential And Trace Elements In Biological Process, Metalloporphyrins With Special Reference To Haemoglobin, Types Of Magnetic Behaviors, Method Of Determining Magnetic Susceptibility, Spin Only Formula, L-S Coupling.

BASIC PHYSICS

Physical Properties- Temperature, Weight And Mass, Density, Refractive Index, Diffraction, Polarization

Laws Of Motion- Motion In A Uniform Field, Centripetal Acceleration, Motion Under A Central Force

Basic Optics- Light As An Electromagnetic Wave, Interference Of Light, Principle Of Superposition, Two-Slit Interference, Michelson Interferometer And Its Application

Microscopy- Numerical Aperture And Resolving Power Of Microscopic Systems, How The Microscope Forms Images; Simple, Compound, Stereoscopic, Polarizing, Comparison, Fluorescent & Electron Microscopes

Eligibility Criteria



B.Sc

Forensic Science

THE CANDIDATES MUST HAVE A MINIMUM EDUCATION QUALIFICATION OF HIGHER SECONDARY (10+2) OR ANY EQUIVALENT EDUCATION WITH PHYSICS, CHEMISTRY, BIOLOGY, AND/OR MATHEMATICS AS THE MAIN SUBJECTS WITH A MINIMUM AGGREGATE OF 45% OR SHOULD BE APPEARING FOR THE SAME IN 2022.

TO APPEAR FOR AIFSET 2022, THE CANDIDATE MUST SATISFY THE MINIMUM ELIGIBILITY CRITERIA. IF THE CANDIDATE IS FOUND TO NOT SATISFY THE CRITERIA, THEN HIS/HER CANDIDATURE CAN BE CANCELLED AT ANY TIME DURING THE ADMISSION PROCESS.

M.Sc

Forensic Science

THE CANDIDATES MUST HAVE A BACHELOR DEGREE OR ANY EQUIVALENT EDUCATION IN SCIENCE WITH RELEVANT SUBJECTS WITH A MINIMUM AGGREGATE OF 45% OR SHOULD BE APPEARING FOR THE SAME IN 2022.

TO APPEAR FOR AIFSET 2022, THE CANDIDATE MUST SATISFY THE MINIMUM ELIGIBILITY CRITERIA. IF THE CANDIDATE IS FOUND TO NOT SATISFY THE CRITERIA, THEN HIS/HER CANDIDATURE CAN BE CANCELLED AT ANY TIME DURING THE ADMISSION PROCESS.



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