# J.S. University, Shikohabad

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# Value Added Course

# [VAC-090]

### Law of Forensic Science

# FACULTY OF LAW



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### Law of Forensic Science

## [VAC-090]

#### **Duration:**

30 Hours. (Theory + Practical 30 hrs)

This course can also be offered as 06 days full time intensive course.

#### **Course Learning Outcomes**

- 1. This course help the student to acquire basic knowledge about the forensic science.
- 2. It also it help to study the connection between law and forensic science and how forensic science is important when any crime is committed.
- 3. Demonstrate knowledge and understanding of some of the links between forensic science and the legal system
- 4. Demonstrate an understanding of how forensic scientists operate and use scientific evidence in legal context.
- 5. Draw together information from different sources and make logical deductions as a result
- 6. Describe the scope of forensic science along with various principle governing it .
- 7. Demonstrate various Crime Scene Management techniques.

Sr.No	Content	Duration (30 Hrs)
1	Constitutional Right and Law of Forensic Science	05
2	Criminal Psychology and Forensic Science	05
3	Role of Forensic Science in Investigation of Crime	04
4	Law Relating to Ballistics	04
5	Questioned Documents and Forensic Science	04
6	Modern Techniques for Collection of Evidences and Role of Forensic Science	04
7	Cyber Forensic	04

**Objectives if the Course :** Forensic science plays s very important role in criminal law justice system . It helps in determination of the guilt of a suspected criminal , and ascertains various facts in a case by scientifically testing various types of evidences collected during criminal investigation . A Prosecutor or a judge is an expert in the field of law but may lack on – depth scientific knowledge , which may be necessary in different cases to ascertain the facts and circumstance of the case in order to prove the case "beyond reasonable doubts" and to attribute criminal liability to the accused person.

Therefore, expert opinion of scientists and doctors are invited by the courts whenever evidence are scientifically examined.

The aim of this course is to explain the concept of forensic science and its role in criminal law. This course will give an overview as to what kind of evidence are collected and scientifically tested in various crimes, how the result of these tests and expert opinion are useful in investigations and trials and its evidentiary value.

#### Module 01 Constitutional Rights and Law of Forensic Science :

- 1. Right to Privacy and Right against Self Incrimination with leading cases
- 2. Meaning of Forensic Science

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- 3. Development of forensic science
- 4. Scope of forensic science in
- 5. Importance of forensic science in Criminal Law
  - a) Role of forensic science in understanding criminal psychology
  - b) Role of forensic science in criminal investigation
  - c) Role of forensic science in court of law
  - d) Role of forensic science with respect to questioned documents
  - e) Digital evidences and forensic science
  - f) Role of forensic science in cyber crimes.
- 6. Forensic Experts and Relevancy of their opinion:
  - a) Crime scene investigator
  - b) Firearms Examiner
  - c) Document Examiner
  - d) Forensic Anthropologist
  - e) Computer Forensic Expert
  - f) Psychiatrist and behavioural scientist, etc.

#### Module 02 Criminal Psychology and Forensic science :

- **1.** Brain Fingerprinting :
- a) Meaning of brain mapping
- b) Underlying principle behind brain mapping
- c) Importance of brain mapping
- d) Lie detection technique
- e) Use of Brain fingerprinting in criminal investigation
- f) Brain fingerprinting in India -Guidelines by Supreme Court and NHRC
- g) Evidentiary Value in the court of law
- 2. Narcoanalyasis :
- a) Meaning of Narcoanalysis
- b) Scientific Theory behind narcoanalysis
- c) Precaution before conducting the tests
- d) Presence of Experts
- e) Narcoanalysis in India Guidelines of Supreme Court, NHRC
- f) Rights of the accused person
- g) Importance of Narcoanalysis in criminal investigation
- h) Evidentiary value in court of Law
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- a) Meaning of polygraph test
- b) Theory behind polygraph test

- c) Application and utility
- d) Legal and Constitutional Status in India
- e) Evidentiary Value

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- f) Judicial Precedents related to polygraph test
- 4. Handwriting Analysis :
- a) Meaning of handwriting analysis
- b) Underlying principle for handwriting analysis
- c) Use of Handwriting Analysis in understanding the character and personality traits of a criminal and ascertaining certain facts during investigation and as an alternative method for lie detection.
- d) Evidentiary value of handwriting analysis
- e) Judicial approach
- f) Role of handwriting expert and evidentiary value of expert opinion on handwriting

#### Module 03 Role of Forensic science in Investigation of Crime :

- 1. Introduction:
  - a) Types of Crimes
  - b) Importance of forensics in various types of crimes
- 2. Legal Procedure after commission of a crimes :
  - a) Inquest- by police and Magistrate
  - b) Court of law
  - c) Summons
  - d) Record of evidence
  - e) Medical evidence- certificates, reports, dying declaration, etc.
  - f) Witnesses- common, experts, conduct and duties of doctors
  - g) Preservation of medico- legal evidence at the crime scene
- 3. Autopsy:
  - a) Objectives of Autopsy
  - b) Requirements
  - c) Protocol
  - d) Exhumation
  - e) Identification
  - f) Time of death
  - g) Sudden unexpected deaths
  - h) Instantaneous psychological deaths
  - i) Autopsy in traffic accidents
  - j) Age estimation
  - k) Starvation deaths
  - l) Burns
  - m) Asphyxial deaths
  - n) Rape
  - o) Abortion
  - p) Poison
  - **рма ринен** ранна і
    - a) Meaning of DNA fingerprinting
    - b) Principles

- c) Status of DNA fingerprinting in India
- d) Powers of Investigating agency
- e) Role in crime investigation
- f) Judicial Approach

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- g) Evidentiary value
- 5. Fingerprint Forensics :
  - a) Meaning of fingerprint forensics
  - b) Importance and role in criminal investigation
  - c) Techniques for collections
  - d) Law relating to fingerprints
  - e) Power of investigating officers
  - f) Power of Courts
  - g) Provisions under Criminal Procedure code, and Indian Evidence Act-Section 45
  - h) Judicial Approach
  - i) Evidentiary Value
- 6. Forensic Detection Dogs :
  - a) Concept of sniffer dogs
  - b) Role of such dogs
  - c) Evidentiary value

#### Module 04 Law Relating to ballistics :

- 1. Meaning and Scope
- 2. Firearms :
- a) Definition of arms under the Arms Act, 1959;
- b) Prohibited Arms under the Arms Act, 1959;
- c) Definition of firearms;
- d) Types of firearms;
- e) Evidentiary collection
- f) Evidentiary value of firearm examination
- 3. Ballistics Expert :
- a) Role of a ballistics expert
- b) Opinion
- c) Reliability and admissibility of such opinion

#### Module 05 questioned Documents and Forensics Science:

- 1. Meaning of question documents (offences related to documents)
- 2. Sources of question documents
- 3. Proof of signature
- 4. Handwriting analysis with respect to the documents
- 5. Report of an expert Evidentiary value
- 6. Type written Documents

Module 06 Modern Techniques for Collection of Evidences and Role of Forensic Science : .

- 1. Digital and Video Recordings
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- 3. Mobile Phone forensics
- 4. Voice Analysis

5. Evidentiary value of each of the above

#### Module 07 Cyber Forensics :

- 1. Meaning of cyber forensics
- 2. Role of cyber forensics
- 3. Importance of cyber forensics
- 4. Relevant provisions under
  - a) The Information Technology Act, 2000
  - b) The Indian Evidence Act, 1872
- 5. Cyber Crimes :
  - a) Pornography
  - b) Cyber Stalking
- 6. Crime Investigation
- 7. Digital Evidence Collection
- 8. Evidentiary Value of such Evidence
- 9. Judicial Approach Landmark Cases

#### **Recommended Readings :**

- 1. Martin D'Souza and R.P Kataria, Forensics Science in Criminal Trial and Investigation, Orient Publishing Co.
- 2. Kevin J. Strom and Mathew J. Hiccman, Forensics Science and the Administration of Justice- Critical Issues and Direction, SAGE Publications, (Chapters: 1,7,8,9,11and 13.).
- 3. Modi's Medical Jurisprudence and Toxicology, 23rd Ed. Publisher LexisNexis Butterworths Wadhwa.
- 4. C.K Parikh, Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology, CBS Publishers and Distributors.
- 5. B.R Sharma, Forensic Science in Criminal Investigation and Trials, Universal Law Publication,
- 6. Dr. R. Krishnamurti. Forensics Science in Crime Investgation.
- 7. B.S.Nabar, Forensic Science in crime investigation, Asia Law House.
- 8. Medico Legal Manuals.

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**Course Coordinator** 

(Name of Faculty)

Director/Principle/Dean of

Faculty/Department Jajenth

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Mr. Kamsan Ahmad

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