

**DEPARTMENT OF ANTHROPOLOGY**

**National P.G. College,**

**Lucknow, U.P., India**

## **DEPARTMENT OF ANTHROPOLOGY**

**The Department of Anthropology at National P.G. College is affiliated to Arts Faculty and also attached to Science faculty. It has both Under Graduate (B.A., B.Sc.) and Post Graduate (M.A., M.Sc.) Courses. Both the courses have semester system i.e., the Under Graduate Course is of three years and comprises of six semesters. While the Post Graduate course is of two years and has four semesters. Apart from the above the Department also runs a three months certificate course in Forensic Science “Add on Certificate Course in Finger Prints and Document Examination”.**

**Anthropology aims to use a broader approach to gain an understanding of our past, present, and future to address the problems that humans face in biological, social, and cultural realms. The subject explores the origin, evolution and variation of humankind through time and space and looks at how we have evolved from a biologically and culturally weak species to one that has the ability to cause catastrophic change. It has both scientific and humanistic endeavour to explain differences and similarities in appearance, language, culture and society. It incorporates basic biology and physiology, history, geography, sociology, evolution, and sometimes a suspended value judgment, in order to understand why people are, who they are?, why they do? and what they do?. It also introduces the physical, archaeological, linguistic, and ethnological fields of anthropology including human origin, genetic variations and contemporary issues.**

# **FINAL SYLLABUS**

## **Add on Certificate Course in Fingerprints and Document Examination**

<b>Paper</b>	<b>Name of the Paper</b>
<b>Theory Paper-1</b>	<b>Fingerprints Examination</b>
<b>Practical-1</b>	<b>Fingerprints Identification, Analysis and Identification</b>
<b>Theory Paper-2</b>	<b>Forensic Document Examination</b>
<b>Practical-2</b>	<b>Questioned Document Examination, Analysis of Handwriting, Detection of Erasures on Documents</b>

# **Add on Certificate Course in Fingerprints and Document Examination**

## **Fingerprint Examination & Analysis**

### **MODULE-1 HISTORY AND DEVELOPMENT OF FINGERPRINTS**

1. Introduction to Fingerprint Science
  - 1.1 What is Fingerprint?
  - 1.2 Features of Fingerprint
  - 1.3 Formation of Fingerprint
  - 1.4 Genesis and development of Fingerprint
  - 1.5 Importance of Fingerprints in Personal Identification.
  - 1.6 Fingerprint Bureau and its function

### **MODULE-2 PATTERN AND CLASSIFICATION OF FINGERPRINTS**

2. Classification and Identification of Fingerprints
  - 2.1 Terminology related to Fingerprint pattern
  - 2.2 Fingerprint Pattern
    - 2.2.1 Arch
    - 2.2.2 Loop
    - 2.2.3 Whorl
  - 2.3 Ridge characteristics of Fingerprint
  - 2.4 Single Digit Classification and its Usefulness
  - 2.5 Classification and Sub Classification System for Recording Fingerprint Slips and for Conducting Search
  - 2.6 Henry Classification System
  - 2.7 Ten Digit Fingerprints

#### **Practical:**

1. Identification of Patterns
2. Ten Digit Fingerprint Classification
3. Case Studies

### **MODULE-3 TYPES OF FINGERPRINTS AT SOC AND THEIR METHODS OF DEVELOPMENT**

3. Pattern of Fingerprints and Methods of Comparison of Papillary Ridge Counts
  - 3.1 Types of Fingerprints and Scene of Crime
    - 3.1.1 Patent & Visible Fingerprints
    - 3.1.2 Plastics Fingerprints
    - 3.1.3 Latent/ Chance Fingerprints
  - 3.2 Factors affecting Latent Fingerprint
  - 3.3 Methods for Development of Latent Fingerprints
  - 3.4 Digital Imaging and Enhancement
  - 3.5 Application of Laser and other Radiations to Develop Latent Fingerprints
  - 3.6 Metal Deposition Method and Development of Latent Prints on Skin

**Practical:**

1. Development of Latent Fingerprint by Powder Methods
2. Development of Latent Fingerprint by Chemical Methods
3. Comparison between Questioned and Admitted Fingerprints
4. Development by Cyanoacrylate Method
5. Comparison of Partial, Blurred Fingerprints on Documents
6. Fingerprint Report Writing
7. Case Study

**MODULE-4 COLLECTION OF FINGERPRINTS:**

4. Collection and Preservation of Fingerprint
  - 4.1 Taking of Fingerprints from Living and Dead Person
  - 4.2 Preserving and Lifting of Fingerprints
  - 4.3 Photography of Fingerprints
  - 4.4 Comparison of Fingerprints and Basis of Comparison
  - 4.5 Basic error encountered while lifting Finger prints

**Practical:**

1. Field Work
2. Case Study

**MODULE-5 RECORDING OF FINGERPRINTS:****5.1 Manual Methods:**

- 5.1.1 Recording of Roll prints
- 5.1.2 Recording of Plain print
- 5.1.3 Purpose and application of taking fingerprint
- 5.1.4 Photography of finger print

**5.2 Digital Methods:**

- 5.2.1 AFIS
- 5.2.2 History of AFIS
- 5.2.3 Basis of comparison
- 5.2.4 Advantages of AFIS
- 5.2.5 Application in Forensic science
- 5.3 Maintenance of Records
  - 5.3.1 Method of search
    - 5.3.1.1 Vucetish system of class
    - 5.3.1.2 Single digit system of class

**Practical:**

1. Practice of roll & flat method
2. Practice on AFIS
3. Report Writing
4. Case Study

**MODULE-6 LEGAL PRESPECTIVES IN FINGERPRINT:**

6.1 Forgery of Fingerprints

6.2 Fingerprint Expert in Court

6.3 Laws related to fingerprint report

6.4 Report writing

**Practical:**Case studies

# Document & Handwriting Examination

## MODULE-1 FORENSIC DOCUMENT EXAMINATION

### 1. Introduction to Document Examinations

- 1.1 Forensic Document Examination U/S 463 of IPC
- 1.2 Standards Exemplars
- 1.3 Types of Documents
  - 1.3.1 Questioned
  - 1.3.2 Specimen
  - 1.3.3 Admitted
- 1.3 Scientific Examination of Documents
- 1.5 Handling, Care and Preservation of Documents
- 1.4 Nature and Problem of Documents
- 1.5 Photographic Evidence

#### Practical:

1. Physical Matching of Documents
2. Identification of Questioned and Standard Documents

## MODULE-2 THE EXAMINATION OF COMPUTER GENERATED DOCUMENTS

### 2. Computer Generated Documents and the Forensic Examiner

- 2.1 The Pre-examination Evaluation
- 2.2 Examination Procedures
  - 2.2.1 Examination of Original and Photocopied Documents
  - 2.2.2 Identification of Printed Documents
- 2.3 Identification Features of the Printing Process
  - 2.3.1 High Speed Mainframe Line, Drum and Chain Printers
  - 2.3.2 Typewriter Technology Printers: Type Ball and Daisy Wheel
  - 2.3.3 Dot-matrix Printers
  - 2.3.4 Inkjet Printing Technology
  - 2.3.5 Monochrome and Color Laser/ LED Printers
- 2.4 Photocopiers
  - 2.4.1 Analysis of Photocopies
  - 2.4.2 Identifying Individual Photocopiers
  - 2.4.3 Dating Copies
  - 2.4.4 Fabrication
- 2.5 Facsimile Machines
  - 2.5.1 Manipulated Faxes
  - 2.5.2 Fax Handwriting
  - 2.5.3 Fax Machine Defects
- 2.6 Role of Camera and Scanners

#### Practical:

1. General Examination of Printed Documents
2. Identification of Mechanical Impressions in Printed Document
3. Case Study on Mechanism of Printers, Typewriter, Photocopy Machine and Scanner
4. Comparison of Inkjet Printing, Laser Printing, Typewritten Documents etc.

## **MODULE-3 EXAMINATION OF MECHANICALLY GENERATED DOCUMENTS**

### **3.1 Pen and Pencil**

- 3.1.1 Ball Point pen
- 3.1.2 Porous tip pens
- 3.1.3 Roller ball pens
- 3.1.4 Gel pens
- 3.1.5 Fountain pens
- 3.1.6 Writing Inks
- 3.1.7 Lead and Graphite Pencils

### **3.2 Typography**

- 3.2.1 Anatomy of Font
  - 3.2.1.1 Parts of type
  - 3.2.1.2 Type classification system
  - 3.2.1.4 Measuring font size and line spacing
  - 3.2.1.5 Measuring fonts in reinsertion cases
- 3.2.2 Factors affecting Typographic Line Spacing
- 3.2.3 Horizontal Measurements

### **3.3 Typewriter**

- 3.3.1 Type ball Machines
- 3.3.2 Type bar Machines
- 3.3.3 Type wheel Machines
- 3.3.4 Dating of typewriting

## **MODULE-4 EXAMINATION OF HANDWRITING AND APPROACHES**

### **4. Guidelines for the Examination of Handwriting**

- 4.1 Principle of Handwriting
- 4.2 Requirements
- 4.3 Procedures
- 4.4 Evaluation of the Questioned Writing
- 4.5 Evaluation of the Known Writing
- 4.6 Conduct a side by side comparison of Questioned and Known Writings
- 4.7 Techniques used in Document Examination
- 4.8 Instruments used in Document Examination
- 4.9 Indented Writing Impressions (for Original Documents)
- 4.10 Introduction to Ink Analysis (for Original Documents)
- 4.11 Paper Examinations (for Original Documents)

### **Practical:**

1. Microscopic Examination of Paper, Bond Paper, Letter Head etc.
2. Examining Security Features of Indian and other currencies
3. Examination of Indented Writing through Pencil Lead and other Methods
4. VSC and ESDA Technologies

## **MODULE-5 HANDWRITING EXAMINATION AND COMPARISON**

### **5. Introduction to Handwriting Examination**

- 5.1 Writing Forms and Qualities
- 5.2 Handwriting Features
  - 5.2.1 Abbreviations
  - 5.2.2 Alignment
  - 5.2.3 Arrangement
  - 5.2.4 Connection
  - 5.2.5 Initial Stroke
  - 5.2.6 Pen Lifts
  - 5.2.7 Pen Pressure
  - 5.2.8 Punctuation
  - 5.2.9 Rhythm
  - 5.2.10 Shading
  - 5.2.11 Size
  - 5.2.12 Slope
  - 5.2.13 Terminal Stroke
  - 5.2.14 Tremor
- 5.3 Writing Variations
- 5.4 Class and Individual Characteristics
- 5.5 Identification in the Practical Situation
- 5.6 Typical Problems involved in Handwriting Identification
- 5.7 Disguised Handwriting
- 5.8 Age and Order of Writing

#### **Practical:**

1. Practice and Report Writing on Legal and Corporate Cases
2. Practice on Disguised Writing
3. Case Study

## **MODULE-6 IDENTIFICATION OF SIGNATURES AND FORGERY**

### **6. Introduction to Signature Identification**

- 6.1 Genuine Signatures
  - 6.1.1 Accidental Variations
  - 6.1.2 Unusual Genuine Signatures
  - 6.1.2 Receipt Signatures
  - 6.1.3 Signatures influenced by Alcohol and Drugs
  - 6.1.4 Illness and Old Age
- 6.2 Forged and Distorted / Disguised Signatures
  - 6.2.1 Non genuine Signatures identified as Genuine
  - 6.2.2 Methods of Producing a Forged Signature
  - 6.2.3 Traced Forgeries
  - 6.2.4 Simulated Forgeries
  - 6.2.5 Spurious Signatures
  - 6.2.6 Spouse's Limitations

- 6.3 Identifying the Forger
- 6.4 Assisted or Guided Signatures
- 6.5 Identification of the Initials and Illiterate's Marks
  - 6.5.1 Initials
  - 6.5.2 Cross Marks
- 6.6 Evaluating Non-Original Signatures
- 6.7 Forgery by Transplanting a Genuine Signature
- 6.8 Forgery
  - 6.8.1 Types of Forgeries
    - 6.8.1.1 Free-hand
    - 6.8.1.2 Traced
  - 6.8.2 Detection of Forgery

**Practical:**

1. Examination of Free Hand Forgery
2. Tracing Forgery by Carbon Paper, Tracing Paper, Window Tracing etc.

**MODULE-7 ALTERATIONS, ERASURES, AND OBLITERATIONS**

**7. Evaluation of Editing Present in Documents**

- 7.1 Alteration
- 7.2 Erasures
  - 7.2.1 Types of Erasures
- 7.3 Obliteration
- 7.4 Overwriting and Insertions

**Practical:**

1. Verification of Altered Document such as Will, Property Document, Sale-deed etc.
2. Report Writing on Altered and Edited Documents

**MODULE-8 SECURITY FEATURES IN DIFFERENT TYPE OF DOCUMENTS**

**8. Security Features in Documents**

- 8.1 PAN Card
- 8.2 TAN Card
- 8.3 Voter ID card
- 8.4 Driving License
- 8.5 UID Aadhar Card
- 8.6 Passport
- 8.7 Stamp and e-Stamp Paper
- 8.8 Bankers Cheque
- 8.9 QR Code and Bar Code
- 8.10 Identification Features of Indian and other currencies

**Practical:**

1. Microscopic Examination of Security Features under UV Light and Microscope
2. Examination and Comparison of Original and Counterfeit Currency under UV light
3. Inspection of the ID Proofs and Security Documents

## **MODULE-9 VISUAL ILLUSTRATION AND CASE STUDY OF DOCUMENTS**

### **9. Visual Illustration and Case Studies**

- 9.1 Disguise Forgery
- 9.2 Traced Forgery
- 9.3 Forgery by Memory
- 9.4 Forgery by Impersonation
- 9.5 Forgery over a Genuine Signature
- 9.6 Forgery by Transplanting a Genuine Signature
- 9.7 Forgery of Rubber Seals or Stamps
- 9.8 Case Study
- 9.10 White Collar Crime

### **Practical:**

- 1. Case Study
- 2. Report Writing