

# PG DIPLOMA IN CRIMINOLOGY AND FORENSIC SCIENCE

Conducted by Anthropology Department

## COURSE CURRICULUM & MARKING SCHEME

### Semester – I & II

Session : 2022-23



ESTD: 1958

## GOVT. V.Y.T. PG AUTONOMOUS COLLEGE, DURG, 491001 (C.G.)

(Former Name – Govt. Arts & Science College, Durg)

NAAC Accredited Grade A<sup>+</sup>, College with CPE - Phase III (UGC), STAR COLLEGE (DBT)

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Anthropology Department

**Semester I**

**July 2022- December-2022**

**PG Diploma in Criminology and Forensic Science Scheme of Examination**

July 2022-December 2022

FIRST Semester	Paper No.	Title of Papers	Marks		
			(External)	(Internal)**	
	I	Fundamentals of Forensic Science and Physical Evidence	80	20	
	II	Fundamentals of Criminology	80	20	
	LC-I	Lab Course-I	80	20	
<b>Total</b>			<b>300</b>		

January 2023-June 2023

SECOND Semester	Paper No.	Title of Papers	Marks		
			(External)	(Internal)**	
	I	Toxicology, Forensic Chemistry and Forensic Biology	80	20	
	II	Fundamentals of Police Science	80	20	
	LC-II	Lab Course-II	80	20	
<b>Total</b>			<b>300</b>		

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Semester I

Paper – I: Fundamentals of Forensic Science and Physical Evidence

### UNIT - I

- Definition, History, Development and Scope of Forensic Science.
- Scene of Crime and Collection of Physical Evidences, Packing and sending for analysis.
- Sketching of Crime Scene Spot.
- Introduction of Forensic Photography, Role of Photography in Forensic Science.
- Camera: Its parts and functioning, Enlarger and other Equipments used in Photography, Developing and Printing methods.

### UNIT- II

- Forensic Science and Jurisprudence, Medical Jurisprudence.
- Forensic Examination in Burning, Firearms, Poisoning, Railway cutting,
- Stabbing explosion, Sexual offences
- Death: Cause of Death, Death from Asphyxia: Drowning, Hanging, Strangulation, Throttling.
- Procedure in Court as per Criminal Procedure Code
- Indian Evidence Act- 45, Sections 59-73 and Sections 137 & 138.

### UNIT- III

- Introduction and Classification of Questioned Documents.
- Examination of Documents.
- Basis of Handwriting Identification – Individuality of Handwriting
- Various Writing Features and Their Estimation.
- Examination of Signatures.
- Examination of Alterations, Erasers, Over Writing, Additions and Obliterations.

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#### UNIT -IV

- Dermatoglyphics in Criminology & Forensic Science
- History of Dermatoglyphic Prints developments
- Personal identification from Finger prints
- Types and Classification of Finger Prints (Henry' s Classification)
- Battley' s Single Print Classification
- Development and Lifting of Latent Finger Prints
- Finger prints problems, Foot print, Palmar, Sole & Toe Prints, Tool marks, Lip prints.

#### References:

1. R. Safferstin: Hand book of forensic science
2. Ohara & Osterburn : Criminalistics
3. P.L.Krik : Criminalistics
4. B.R. Sharma: Forensic Science in criminal investigation & crime
5. C.R. Parikh: Parikh"sTextbook of Medical Jurisprudence & Toxicology
6. J.V.P. Conway: Evidential Documents
7. S. Goldblatt: Document Evidence & Identification
8. C.Cummins & R. Midlo: Introduction to Dermatographics: Finger, Sole & Toe.
9. Albert Osborn Questioned documents.
10. Chales. C. Thomas Type writing identification
11. Hardless. H.R. Disputed document, handwriting and thumbs print identification.
12. Wilson. R. Harrison Suspended documents – their scientific examination
13. Hilton Scientific Examination of questioned documents
14. R.A. Goegory Scientific identification of disputed documents, Finger Prints &
15. W.R. Harris Suspected Documents

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**Semester I**  
**Paper – II: Fundamentals of Criminology**

**Max. Marks- 80**  
**Min.Marks – 27**

**UNIT -I**

- Definition, aims, nature and scope of Criminology.
- History and Development of Criminology.
- Role of Criminology in Forensic Science.
- Relationship of Criminology with other sciences: Forensic science, Psychology, Anthropology, Sociology and Law.
- Schools of Criminology and its Concept.
- Pre-classical School: Demonological, School of Freewill, Classical School, Neo- Classical School, Geographical School, Socialistic School, Italian School, Psychological School, Multifactor Theory

**UNIT-II**

- The Characteristics and Relationship of Concept of Crime.
- The Concept of Crime and its Socio-Legal Aspects.
- The Causes of Crime, its level and General Description
- The Differentiation approach to the assessment of Cause of Crime
- The inter connections of Social and Biological in the Cause of Crime.
- Biological problems in the complex of Anti Social Behavior

**UNIT -III**

- Criminal Psychology
- Prevention of crime
- The concept of Social Prevention and limits of its functioning
- The basic principle of the Legal regulation of Social Prevention
- Juvenile Court, Rehabilitation Homes, Reformatories

**UNIT -IV**

- Objects of Punishment and its Critical Analysis
- Modern concept of Penology
- Capital Punishment



- Prison System
- Modern Concept of Prison
- Reformation in Judicial System

#### Recommended Books:

1. Barns & Teeters: New Horizon in Criminology
2. Conkin: Criminology
3. Suderland and cressy: The Principals of Criminology
4. Siegel Laary, J: Criminology
5. Singh Shyamdhar: Essentials of Criminology (Hindi)

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## Semester I

### Lab Course - I

Max. Marks- 80

Min.Marks - 27

1. Over view of instruments.
2. Sketching of Crime scene spot and collection of Physical evidences.
3. Its Packing, Preservation and Sending.
4. Recording, Identification & Classifications of Dermatoglyphic Prints.
5. Development of Latent finger prints on glass, paper, wall, polished surface etc.
6. Photography of Latent Finger Prints, Casting of Foot prints.
7. Photographic Techniques.
8. Preliminary Examination of Questioned Documents.
9. Examination of Ink by Thin Layer Chromatography (TLC).
10. Classification of Fingerprints by Henry's Ten Digit Classification.
11. Examination of Tool marks using Comparison Microscope.
12. Classification of Lip prints: Suzuki and Tuschihasi classification.

#### References:

1. R. Safferstin: Handbook of forensic science
2. Ohara & Osterburn: Criminalistics
3. P.L.Krik: Criminalistics
4. B.R. Sharma: Forensic Science in criminal investigation & crime
5. C.R. Parikh: Parikh's Textbook of Medical Jurisprudence & Toxicology
6. J.V.P. Conway: Evidential Documents
7. S. Goldblatt: Document Evidence & Identification
8. C.Cummins & R. Midlo: Introduction to Dermatographics: Finger, Sole & Toe.
9. Albert Osborn Questioned documents.
10. Chales. C. Thomas Type writing identification
11. Hardless. H.R. Disputed document, handwriting and thumbs print identification.



**P.G. Diploma in Criminology and Forensic Science**

**Semester II**

**January 2023 - June 2023**

**Semester II**  
**Paper-I**  
**Toxicology, Forensic Chemistry and Forensic Biology**

**MAX. Marks- 80**

**MIN. Marks - 27**

**UNIT - I**

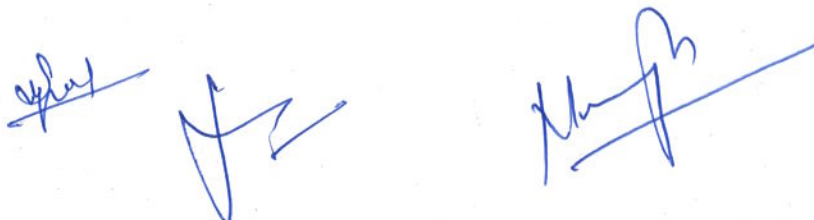
Toxicology: Definition.  
Classification of Poisons.  
Various types of Plant Poisons.  
Study of Insecticides and Pesticides.  
Examination of Poisons in Viscera, Blood and Urine.

**UNIT -II**

Introduction to Narcotic Drugs and Psychotropic Substances (NDPS) Act 1985.  
General Study of Narcotic Drugs and Psychotropic Substances.  
Examination of Narcotic Drugs.  
Adulteration in Jewelleries, Petroleum Products.  
Examination of Inflammable Liquids like Kerosene, Petrol, Diesel.

**UNIT -III**

Introduction to Forensic Biology  
Study of Body Fluids and Biological Materials: Blood, Urine, Saliva, Semen, Vaginal Swab, Vomit, Hair and Fibres, DNA.  
Role of DNA in Paternal and Maternal Disputes.  
DNA Fingerprinting and personal identification.  
Forensic Examination of Body Fluids and Biological Materials.  
Wildlife Forensics: Its role and Importance.



## UNIT -IV

Introduction to Forensic Anthropology

Identification of Bone – Morphological, Anatomical Characteristics, Determination of Age, Sex, Race, Stature.

Forensic Odontology: Definition, Pattern, Type and Structure of Teeth, Age determination  
Identity of Person

Study of Bite Marks and their Forensic Significance.

Role in mass disaster, Dieses of teeth and their significance in personal identification.

### References:

1. R. Safferstin: Handbook of Forensic Science
2. Ohara & Osterburn : Criminalistics
3. P.L.Krik : Criminalistics
4. B.R. Sharma: Forensic Science in Criminal Investigation & Crime
5. C.R. Parikh: Parikh' s Textbook of Medical Jurisprudence & Toxicology
6. Surinder Nath Forensic Anthropology
7. Forensic Toxicology Manual, Ministry of Home Affairs, DFS



**Semester II**  
**Paper - II**  
**Fundamentals of Police Science**

**MAX. Marks- 80**

**MIN.Marks - 27**

**UNIT- I**

History and Development of Police System.  
Reformation of Police System.  
Application of Police in maintenance the Law and Order.  
Limitations of Police System with reference to Human Rights

**UNIT- II**

Investigation of the following cases:

1. Murder
2. Theft and Burglary
3. Road, Railway and Air Accidents
4. Arson
5. Sting Operation

**UNIT- III**

First Information Report, Search, Seizure, Arrest  
Interrogation, Final Crime Theory, Preparation of Charge sheet.  
Procedure in Court as per Criminal Procedure Court  
Simons Trial, Warrant Trial, Case Diary.

**UNIT- IV**

Role of Community in Police Corruption.  
Use of Criminal Profiling in Crime Investigation.  
Police System in India and its various organizations  
Modernization of Police System with reference to Control system and Modern equipment



Semester II



**Paper - III**  
**Lab Course – II**

Max. Marks- 80

Max.Marks - 27

1. Determination of height of an individual by the long bones.
2. Determination of Sex of an individual by the Skull, Pelvic, Girdles and Long bones.
3. Determination of age of an individual by the skull and Long bones.
4. Identification of Drugs, Pesticides by Thin Layer Chromatography (TLC).
5. Preliminary and Confirmatory Examination of Blood.
6. Examination of Saliva.
7. Isolation of DNA from Blood, Saliva, Hair root.
8. Personal identification through DNA markers
9. Morphological & Microscopic examination of hair and fibers.
10. Examination of Inflammable liquids.
11. Analysis and Study of Bite Marks.

**References:**

1. R. Safferstin: Handbook of Forensic Science
2. Ohara & Osterburn : Criminalistics.
3. P.L.Krik : Criminalistics
4. B.R. Sharma: Forensic Science in Criminal Investigation & Crime
5. C.R. Parikh: Parikh"sTextbook of Medical Jurisprudence & Toxicology
6. Surinder Nath: Forensic Anthropology
7. Forensic Toxicology Manual, Ministry of Home Affairs, DFS





