

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

**Semester I**

**July2015- December-2015**

**Pt. Ravishankar Shukla University, Raipur**

**PG Diploma in Criminology and Forensic Science[Credit System]  
Scheme of Examination**

<b>July 2015-December 2015</b>					
<b>FIRST Semester</b>	Paper No.	Title of Papers	Marks		Credit
			(External)	(Internal)**	
	I	Fundamentals of Forensic Science and Physical Evidence	80	20	6
	II	Fundamentals of Criminology	80	20	6
	LC-I	Lab Course-I	80	20	8
	<b>Total</b>		<b>300</b>		<b>20</b>
<b>January 2016-June 2016</b>					
<b>SECOND Semester</b>	Paper No.	Title of Papers	Marks		Credit
			(External)	(Internal)**	
	I	Toxicology, Forensic Chemistry and Forensic Biology	80	20	6
	II	Fundamentals of Police Science	80	20	6
	LC-II	Lab Course-II	80	20	8

	<b>Total</b>		<b>300</b>		<b>20</b>

**Semester I**  
**Paper I**  
**Fundamentals of Forensic Science and Physical Evidence**

**MAX. Marks- 80**  
**MIN.Marks - 27**

**UNIT - I**

Definition, History, Development and Scope of Forensic Science.  
Scene of Crime and Collection of Physical Evidences.  
Sketching of Crime Scene spot.  
Forensic Examination in Drowning, Burning, Firearms, Hanging, Strangulation,  
Throttling, Poisoning, Railway cutting,  
Stabbing explosion, Sexual offences and Natural deaths, Cause of deaths.

**UNIT- II**

Forensic Science and Jurisprudence, Medical Jurisprendence.  
Criminal Law: Definition as per Indian Penal Code.  
General exceptions of Indian Penal Code.  
Offences against Persons & Property  
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.

#### **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.

#### **UNIT -V**

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 method.

#### ***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’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.
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

**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.

**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

Schools of Criminology and Its Concept  
Demonological, School of Freewheel, Classical School, Neo- Classical School,  
Geographical School, Socialistic School  
Italian Psychoanalytical, Psychological, Multifactor

#### **UNIT -IV**

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 -V**

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)

## **Semester I**

### **Lab Course - I**

**MAX. Marks- 80**  
**MIN.Marks - 27**

1. Sketching of Crime scene spot and collection of Physical evidences.
2. Its Packing, Preservation and Sending.
3. Recording, Identification & Classifications of Dermatoglyphic Prints.
4. Development of Latent finger prints on glass, paper, wall, polished surface etc.
5. Photography of Latent Finger Prints, Casting of food prints.
6. Photographic Techniques.
7. Preliminary Examination of questioned Documents.
8. Examination of Ink by Thin Layer Chromatography (TLC).
9. Classification of Fingerprints by Henry"s Ten Digit Classification.
10. Examination of Tool marks.
11. Examination of Erased Punch Marks.
12. Examination of Mechanical impression (Type writing).

#### **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.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.

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## **Semester II**

**January 2016-June 2016**

### **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: Blood, Urine, Saliva, Semen, Vaginal Swab, Vomit, Milk.  
Forensic Examination of Body Fluids.  
Role of DNA in Paternal and Maternal Disputes.  
DNA Fingerprinting.  
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, Dishes 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"sTextbook 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 of 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.

#### **UNIT- IV**

Procedure in Court as per Criminal Procedure Court  
Simons Trial, Warrant Trial, Case Diary.

#### **UNIT- V**

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**

#### **Lab Course - II**

**MAX. Marks- 80**

**MIN.Marks - 27**

1. Determination of Height through Long Bones.
2. Identification of Drugs, Pesticides by Thin Layer Chromatography (TLC).
3. Preliminary and Confirmatory Examination of Blood.
4. Examination of Saliva.
5. Isolation of DNA from Blood.
6. Examination of Inflammable liquids.
7. 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