



DAVANGERE UNIVERSITY

Department Studies in Criminology and Forensic Science

Shivagangothri, Davangere -07

Prof. R N Mangoli
Chairman (PG- BoS)

Date: 09-09-2024

To
The Registrar
Davanagere University,
Shivagangotri, Davangere-577002

Respected Sir,

Sub:Submission of BoS Proceedings along with I-IV Semester PG Syllabus in M.Sc
Criminology and Forensic Science to be effected from 2024-25 and onwards reg...

Ref.No: DU/CRIM/143/20242-5 Dated 4th Sept 2024 .

With respect to the above, please find enclosed herewith the PG-BoS Proceedings along with I-IV Semester Syllabus in M.Sc Criminology and Forensic Science to be effective from 2024-25 and onwards.

Thanking You

Sincerely

PG-BoS Chairman
Prof.R.N.Mangoli

Chairman BoS
Department of Studies in
Criminology and Forensic Science
Davangere University,
Shivagangotri, Davangere-577007.

Encls:

1. BOS Proceeding dated 9th Sept 2024
2. M.Sc in Criminology and Forensic Science Curriculum Structure
3. M.Sc in Criminology and Forensic Science detailed syllabus

Davangere University
Shivagangothri, Davangere-577002
POST GRADUATE PROGRAMME- CHOICE BASED CREDIT SCHEME (CBCS)

M.Sc in Criminology and Forensic Science
Syllabus 2024-25

Course Objectives

Globally Crime is one of the major social problems. It has severely affected our social organization. The Crime graph given by National Crime Records Bureau (NCRB) under the Ministry of Home Affairs, Government of India shows an upward trend. The new types of crimes with newer 'Modus Operandi' are taking place by misusing modern technological innovations. The crimes like terrorism, Human Rights Violation, Cyber Atrocities, Financial Frauds, White Collar Crimes etc., have become a common phenomenon. Similarly, the traditional crimes like Murder, Robbery, dacoity and other kinds of traditional crimes are also increasing. Maintenance of peace, harmony and social order is very much essential. The course designed keeping in view broader aspects and dimensions of the above objectives.

1. The scientific approach to tackle the crime problem is need of the hour. This problem can be effectively tackled with the help of different agencies of Criminal Justice system like Police, Prison, Law, Court and various other agencies.
2. To study the different agencies of Criminal Justice System scientifically.
3. To find out the solution to the crime problem.
4. To bring culprit to the book and punish him with the speedy trials.
5. To get justice to the victims of crime the Criminology and Forensic Science Course at the Post Graduation level is designed to train and equip the students.
6. To work for the cause of society.
7. To understand the process of making laws, breaking of the laws and societal reaction to breaking of the laws.
8. To expose the students on various aspects of Crime, Criminality, delinquent behavior, Reformation and Rehabilitation of Criminal, Victim of Crime, Victim Assistance and Victim Compensation.
9. To provide qualified candidates to serve in the State and Central Forensic Institutes, Law enforcement agencies and Judiciary.


COORDINATOR
Criminology Department
DAVANGERE UNIVERSITY
DAVANGERE




Chairman BoS
Department of Studies in
Criminology and Forensic Science
Davangere University,
Shivagangothri, Davangere-577002.

Davanagere University, Davanagere

Syllabus of M. Sc in Criminology and Forensic Science

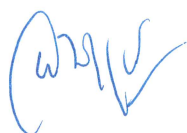
Semester System Course under the Choice Based Credit Scheme (CBCS)

For the year 2024-25 and onwards


GENERAL REGULATIONS Eligibility Conditions:

01. Students seeking admission to the M. Sc Degree course in Criminology and Forensic Science must possess a Bachelor's Degree of this University or any other university recognized by the U G C with Criminology and Forensic Science, Criminology and Criminal Justice, Forensic Science, Criminology, Anthropology and Psychology in BA Degree, any B.Sc Degree, any Degree with PUC Science and LL.B Degree students are eligible to get admission to post-graduate programmes under the Davanagere University Choice Based Credit Scheme, provided they satisfy the requisite eligibility conditions as prescribed by the university.
02. The MSc Semester Course under CBCS in Criminology and Forensic Science degree extend for a period of two years [4-semesters]. There will an examination at the end of the each semester.
03. In order to eligible for the M.Sc. Degree course a candidate has to complete the prescribed semesters under CBCS Study, including Theory, Practical, visits to the prescribed institutions, field work, Research Project Dissertation work etc within the state/outside the state for a duration of two years.
04. Medium of instruction shall be in English for all the subjects in M. Sc Criminology and Forensic Science course.
05. The students are required to study the three categories of papers in the four semester course viz. Hard Core (Compulsory Papers), Soft Core (Open Elective Papers) and Specialization Papers prescribed in respective semester syllabi. Teaching to the Hard Core papers and Specialization papers is imparted in the P.G. department of Criminology and Forensic Science and teaching of the Open Elective papers is imparted in the respective department where the concerned subject is taught.


COORDINATOR
Criminology Department
DAVANAGERE UNIVERSITY
DAVANAGERE

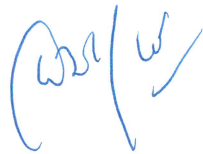





Chairman
Department of Studies in
Criminology and Forensic Science
Davanagere University,
Shivagangotri, Davanagere-577007.

06. There shall be internal assessment marks of 30 for each paper and also for practical work in each semester. These marks are awarded to the students as per the regulations governing the semester system.
07. Each Hard Core, Soft Core and Specialization paper will have four credits.
At the end of the 4th semester student each M.Sc. student has to undertake the Field Work assigned to him/her, Compulsory Research Dissertation Project Work assigned to him/her by the concerned supervisor. After completion of the Field Work / Research Dissertation Project Work each student shall prepare a work done by him/her and it shall be certified by the Supervisor concerned to the work and it shall be evaluated both by the Internal and External Examiners at the end of the semester.
08. Visit to various institutes of Criminological and Forensic interest within the state /out of the state is an optional at the end of the M.Sc. III semester [during mid-term vacation].
09. The intake capacity of the students for the M.Sc semester CBCS is 40 students every year under the normal fees prescribed by the university. Enhanced payment seats shall be available as per the university rules.
10. The terms of each semester shall be decided by the University. The student is required to attend a minimum of 75% of the total classes engaged for each paper and practical.
11. Fees, Application form for Admission, Scholarship, Library and Cultural Activities as per rules of the University as and when.
12. Any other matter arising on the above mentioned eligibility conditions shall be governed by the University Regulations.


COORDINATOR
Criminology Department
DAVANGERE UNIVERSITY
DAVANGERE

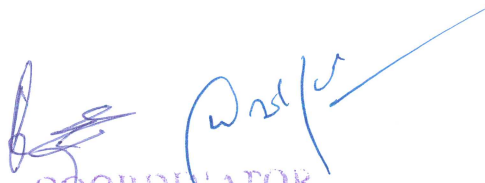





Chairman BoS
Department of Studies in
Criminology and Forensic Science
Davangere University,
Shivagangotri, Davangere-577007.

Programme Specific Outcomes (PSO)

1. The Postgraduates M.Sc. in Criminology and Forensic Science are Prudent to Serve the Police Department, Scene of Crime Officers, Forensic Scientific Officers, Prison and Correctional institutions etc. .
2. The Criminology and Forensic Science Graduates are well equipped to serve the Society as Private Detectives. Security Managements and Consultancy Security Services at MNSs and other Industries and companies.
3. The Criminology and Forensic Science Post Graduates can join the teaching professions in Universities and Degree Colleges.
4. The Students of M.Sc Criminology and Forensic Science can take up research projects.



COORDINATOR
Criminology Department
DAVANGERE UNIVERSITY
DAVANGERE.



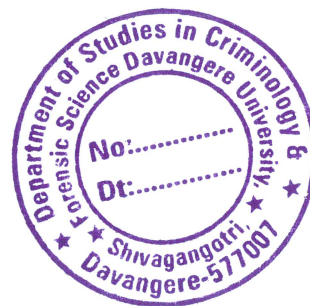
Chairman BoS
Department of Studies in
Criminology and Forensic Science
Davangere University,
Shivagangotri, Davangere-577007.

DAVANGERE UNIVERSITY, DAVANGERE
SYLLABUS FOR POST GRADUATE STUDIES IN
M.Sc CRIMINOLOGY and FORENSIC SCIENCE
UNDER CBCS SEMESTER SCHEME

2024 and 25 and onwards

CBCS Scheme

I SEMESTER M.Sc.



Sl. No	Subject Details	Max Marks	Max Marks IA	Total Marks	Hrs / Week	Exam Duration	Credits
	Compulsory Subjects						
1.1	Fundamental of Criminology and Criminal Law	70	30	100	4 hrs	3	4
1.2	Penology and Correctional Administration	70	30	100	4 hrs	3	4
1.3	Fundamental of forensic science	70	30	100	4 hrs	3	4
1.4	Police Administration and Policing	70	30	100	4 hrs	3	4
1.5	Juvenile Justice System	70	30	100	4 hrs	3	4
1.6	Lab Based practical – Police Science	70	30	100	4 hrs	3	4
	Mandatory Credits: Communication Skills						2
	Total Marks / Credits for I Semester						26

II SEMESTER M.Sc

Sl. No	Subject Details	Max Marks	Max Marks IA	Total Marks	Hrs / Week	Exam Duration	Credits
	Compulsory Subjects						
2.1	Forensic Prints and Impressions	70	30	100	4 hrs	3	4
2.2	Techniques of Crime Investigation	70	30	100	4 hrs	3	4
2.3	Victimology and Victim Justice	70	30	100	4 hrs	3	4
2.4	Research Methodology and Statistics	70	30	100	4 hrs	3	4
2.5	Human Rights and Criminal Justice System	70	30	100	4 hrs	3	4
2.6	Lab Based Practicals - Forensic Print Science	70	30	100	4 hrs	3	4
	Mandatory Credits: Computer Skills	70	30	100	4 hrs	3	4
	Total Marks / Credits for II Semester						26


Dr. U.S. MAHABALESHWAR
M.Sc., M.Phil., Ph.D.
 Professor & Dean, Science & Technology
 Davangere University, Shivangotri,
 Davangere-577 007, Karnataka, India.


Registrar
 Davangere University
 Shivangotri, Davangere.

III SEMESTER M.Sc

Sl. No	Subject Details	Max Marks	Max Marks IA	Total Marks	Hrs / Week	Exam Duration	Credits
	Compulsory Subjects						
3.1	Forensic Medicine	70	30	100	4 hrs	3	4
3.2	Private Detective & Security Management	70	30	100	4 hrs	3	4
3.3	Crime Scene and Forensic Photography	70	30	100	4 hrs	3	4
3.4	Field Visits – Local institutions Visits. (Criminology & Forensic Science Subjected Related Institutes)	70	30	100	4 hrs	3	4
3.5	Specialization paper – Forensic Evidence-I (Physical Sciences) OR Forensic Evidence-II (Biological Sciences)	70	30	100	4 hrs	3	4
3.6	Open Elective Course–Police Science	40	10	50	2 hrs	02	02
	Total Marks / Credits for III Semester *						24

IV SEMESTER M.Sc

Sl. No	Subject Details	Max Marks	Max Marks IA	Total Marks	Hrs / Week	Exam Duration	Credits
	Compulsory Subjects						
4.1	Forensic Geographical Information Science	70	30	100	4 hrs	3	4
4.2	Cyber Crimes and Cyber Laws	70	30	100	4 hrs	3	4
4.3	Forensic Psychology	70	30	100	4 hrs	3	4
4.4	Corporate Crimes	70	30	100	4 hrs	3	4
4.5	Specialization Papers – Forensic Science-III (Chemical Sciences) OR Questioned Document	70	30	100	4 hrs	3	4
4.6	Research Dissertation	70	30	100	4 hrs	3	4
	Mandatory Credits: Personality Development					2	2
	Total Marks / Credits for IV Semester						24
	Total Credits for the Course	700	1650	2350	104		104

M.Sc. in Criminology and Forensic Science

SEMESTER - I

PAPER 1.1:

**FUNDAMENTALS OF CRIMINOLOGY AND CRIMINAL
LAW**



Learning Objectives: After studying this paper the students will know:

- The importance of criminology, crime, criminal behavior and causes of criminal behavior.
- The significance of criminal behavior on society.
- About different theories of crime
- The comprehensive knowledge BNS, BNSS and BSA 2023

Unit – I : Introduction to Criminology

- Meaning, Definition, Scope and Objectives of Criminology
- Relationship of Criminology with others Social Sciences and Criminal Law.
- Relevance of Criminology to Contemporary Society.
- Meaning and Definition, Characteristics of Crime, Classification of Crime, Crime, Sin and Vice
- Meaning, Classification, Types of Criminals- General Idea, Professional Criminals, Habitual Criminals and White Collar Criminals.
- Causes of Crimes and their Prevention

Unit – II: Classical and Positive School of Criminology

- Pre classical ideas – Meaning and Concept of Demonology,
- Classical theories – Ideas of Bentham and Beccaria and Neo - classical theories – Golly Garaud and Rossi
- Positivism in Criminology: Morphological theories – Cesare Lombroso, Enrico Ferri, Rafael Garafalo, Biological theories – Family-Genetics. Chromosomes and Genes, Study of twins and family trees-Kallikas, Jukes, Anthropological theories – Kretschmer Constitution Hooton, Sheldon and Endocrinological Approaches.

Unit – III : Sociological Theories, Social Processes Theories and Radical Approach

- Cartographic School- Adolf Quetlet, Peter Kropotkin., Culture Conflict Theory – Thorsten Sellin., Chicago School of Crime – Ecology of Crime – Social Disorganization, Crime, unemployment Poverty, Broken homes., Social Structure and

Anomie theory – Emile Durkhiem, Robert K Merton, Social Learning – Differential Association Theory – EH Sutherland – Differential Opportunity, Differential Identification.

- Containment Theory – Reckless and Denitz.
- Social Processes Theories: Labelling Theory – Edwin Lemert and Becker, Shame and Re-integrative Theory – Braithwaite, Rational Choice Theory – Cornis & Clarke and Routine Activity Theory – Cohen & Felson.
- Radical Approach: Development of Radical Criminology: Meaning, Scope and Relevance, Left Radical View – Richard Quinney, Erickson, Critical Criminology – Tailor, Walton and Young and Multi-Factor Approach.

Unit – IV: Introduction of Criminal Law

- Meaning, definition, Concept, Characteristics and Theories of origin of Criminal law.
- **Bhartiya Nyaya Sanhita 2023:** General Explanations- Important definitions like Man, Woman, Movable Property, Dishonesty, Fraudulently, Counterfeit, Document, Voluntarily, Offence, Injury, Life, Death, Good faith and other definitions useful from the Criminological point of view, General Exceptions and its importance.
- Understanding the ingredients of the following offences and punishment for the same - Abatement, Criminal Conspiracy, Waging war against Government of India, Abating Mutiny, Unlawful Assembly, Giving false evidence, Counterfeiting Coin, Public nuisance.
- Culpable Homicide, Murder, Causing death by negligence, Attempt to Commit suicide, Hurt, Grievous hurt, Wrongful restraint, Wrongful Confinement, Criminal force, Assault, Kidnapping, Abduction, Rape.
- Theft, Extortion, Robbery, Dacoity, Dishonestly receiving stolen property, Cheating, Inducing to deliver the property, Mischief, Criminal trespass, House breaking, Forgery, Making false document, Counterfeiting of currency notes or Bank notes, Defamation, Marrying again during life time of husband or wife, of attempt to commit offences
- **Bhartiya Nagarika Suraksha Sanhita and Bhartiya Saksya Adhiniyam 2023**
- Brief background: Meaning and Importance of BNSS, Functionaries under the Code – A brief introduction to Police, the Prosecutors, Defense Counsel, the Courts, Prison authorities and Correctional services personnel

- Summons and Warrants: Forms of Summons, Serving of Summons, Form of warrant of arrest and duration, Execution of Warrant, Power to issue order in urgent cases, Procedure of trial of warrants and summons cases and Provisions of bail.
- **Indian Evidence Act:** Meaning of Evidence, types of Evidence.
- Admission, Confessions and Different sections on Confessions,
- Opinion of Experts, Burden of proof and Witnesses

Suggested Readings

1. Ahuja Ram, 2000, Criminology, Rawat Publications, New Delhi.
2. Barns H.E. and Teeters N. K. – New Horizons in Criminology, Prentice Hall of India Pvt. Ltd., New Delhi, 1966
3. Cavan R. S. - Criminology , Thomas Y. Crowell Company, New York, 1962
4. Cavan R. S. - Criminology , Thomas Y. Crowell Company, New York, 1962
5. Paranjape N. V - Criminology and Penology, Central Law Publications, Allahabad, 2005
6. Ponnaian M. – Criminology and Penology, Pioneer Books, Delhi, 1992
7. Rajan V. N. – Victimology in India
8. Reckless Walter C. – The Crime Problem, Vakils, Feffer and Simons Pvt. Ltd., Bombay, 1970
9. Sethana J. M. J. – Society and the Criminal, N. M. Tripathi Pvt. Ltd., Bombay, 1989
10. Siddique Ahmed – Criminology Problems and Perspectives, III Edn., Eastern Book Company, Lucknow, 1993.
11. Srivatsava S. S. – Criminology and Criminal Administration, Central Law Agency Allahabad, 2002
12. Sutherland Edwin H. and Crassey D.R.– Principles of Criminology, Times of India Press, Bombay, 1965
13. Vadakumchery James – Criminology and Penology, Kairali Book International, Trivandrum, 1983
14. Bhartiya Nyaya Sanhita 2023
15. Bharitya Nagarik Suraksha Sanhita 2023
16. Bharitya Sakshaya Ahiniyama 2023

PAPER 1.2

PENOLOGY AND CORRECTIONAL ADMINISTRATION

Learning Objectives: After studying this paper the students will know –

- The Meaning, definition of penology, punishments and Development of correctional institutions.
- The types of Institutional corrections.
- Community Corrections and other non-institutional correctional methods

Unit – I: Introduction to Penology

- Meaning, definitions of Penology
- Scope and objectives of Penology
- Relationship of Penology with Criminology, Forensic Science, Criminal Law, Correctional Administration.
- Penology as a Science.
- Correctional Administration- Meaning, Scope and objectives.

Unit -II: Punishment and Its Historical Background

- Meaning, definition and objectives.
- History of Punishment.
- Theories of Punishment.
- Types of Punishment. – Corporal and Capital.
- Punishments under Bhartiya Nyay Sanhita 2023.

Unit – III: Prison System in India

- Historical development of Indian Prison system.
- Prison Manual.
- Prison Act.
- Prison Administration in India.

Unit – IV: Institutional Corrections

- Reformatory Programmes in Prisons, Open Air Prison System and Juvenile Correctional Institutions.
- Women Correctional Institutions and State Home for Men.

- Community Based Corrections: Meaning, concept and importance of Community based Corrections
- Probation: Meaning, definition, importance and its legislation
- Parole: Meaning, definition, importance and its legislation and after Care Services and its importance

Suggested Readings

1. Barns H.E. and Teeters N. K. – New Horizons in Criminology, Prentice Hall of India Pvt. Ltd., New Delhi, 1966
2. Government of Karnataka Publications and Government of India Reports-Prison Manual, Prison Act, Probation of Offenders Act, Juvenile Justice Act and Mulla Committee report on Prison Reform
3. Paranjape N. V - Criminology and Penology, Central Law Publications, Allahabad, 2005
4. Reckless C. Walter – The Crime Problem, Vakils, Feffer and Simons Pvt. Ltd., Bombay, 1970
5. Siddique Ahmed – Criminology Problems and Perspectives, III Edn., Eastern Book Company, Lucknow, 1993.
6. Srivatsava S. S. – Criminology and Criminal Administration, Central Law Agency Allahabad, 2002
7. Sutherland H. Edwin and Crassey D.R.– Principles of Criminology, Times of India Press, Bombay, 1965
8. Vadakumchery James – Criminology and Penology, Kairali Book International, Trivandrum, 1983

PAPER 1.3

FUNDAMENTALS OF FORENSIC SCIENCE

Learning Objectives: After studying this paper the students will know –

- The meaning, concept and historical background of forensic science
- Principles and branches of forensic science
- Forensic Ballistics, Explosives and Trace Evidence in the detection of crime.

Unit –I: Introduction to Forensic Science

- Meaning, Definition, Scope, History and Development of Forensic Science.
- Pioneers in Forensic Science & their Contribution to the field of Forensic Science.
- Principles, Methods and Various Sections of Forensic Science Laboratory like,
- Forensic, Toxicology, Serology, Finger Print, Arson and Explosion,
- DNA Test, Document Analysis and Voice Examination a brief Explanation.
- State and Central Forensic Science Laboratories.

Unit –II: Medico-Legal Aspects

- Blood, Semen, Saliva and their tests.
- Inheritance of Blood Group and DNA tests.
- Identification and Traces of Human Hair and Structure.
- Identification and Traces of Animal Hair and Structure.
- Identification and Traces of Fiber, Paint, Soil, Cigarette and Beedi.

Unit –III: Finger Print

- History, Meaning and Develop of Finger Prints.
- Patterns, Ridges and Characteristics of Finger Prints and its Importance.
- Primary and Single Digit Classification, Counting and its Importance.
- Developing, Lifting, Comparison and Identification of Chance and Latent Finger Prints.
- Developing, Lifting, Comparison of Foot Print, Track Prints, Walking Picture, Surface and Sunken Foot Prints.
- Trace Marks, Skid Marks, Development, Lifting and Comparison.

Unit –IV: Questioned Document, Glass Fracture and Ballistics

- Meaning, Importance and History of Questioned Documents
- Writing Materials, General Characteristics of Hand Writing.
- Principles of Handwriting Identification and Type Written Scripts in Forgery Cases.

- Glass Fracture: Meaning, Definition, Types of Glass Fracture and its Importance in Crime Investigation.
- Ballistics: Meaning, importance and History of Ballistics, Fire Arms, Nature, Types and Its Classification.
- Direction of Fire and Deviation of Fire, and Determination of Range of Firing Portion.
- Identification of Firearms and Ammunitions by Cartridges, Bullets, Materials and Evaluation of Firearm Evidence.
- Explosives, Nature, Materials and Identification.

Suggested readings

1. Ashok. M, Naya Vignana Mattu Police Vignana. (Kannada)
2. Brenner, John C, 2000, Forensic Science, An Illustrated Dictionary, CRC Press, USA.
3. C.G.G. Aitken and D.A. Stoney; The use of statistics in Forensic Science, Ellis Harwood Limited, England (1991)
4. Dennies, Howitt, 2002, Forensic & Criminal Psychology, Pearson Education, London, New York.
5. Handbook of Forensic Science, Karnataka Police Academy.
6. James, S.H. and Nordby, J.J.; Forensic Science; an Introduction to Scientific and Investigative Techniques, CRC Press, USA (2003)
7. Lee, Honry : Advances in Forensic Science.
8. Mordby, J Deed Reckoning – The Art of Forensic science Detection, CRC Press LLC, Boca Raton FL, CRC Press (2000)
9. Nabar, B. S. Forensic Science,
10. Nanda B. B, 2001, Forensic Science in India, Select Publishers, New Delhi.
11. O' Hara & Osterberg : An Introduction to Criminalistics.
12. Saferstein: Criminalistics – An Introduction to Forensic Science, Prentice hall Inc. USA 91995)
13. Sharma B R: Forensic Science in Criminal Investigation and trials.
14. Sharma, B. R. 1990, Forensic Science in Criminal Investigation and Trials, Central Law Agency, Allahabad.
15. Shrma, J. D., 1988, Forensic Science and Toxicology, Lawyers Home, Indore.

PAPER 1.4

POLICE ADMINISTRATION AND POLICING

Learning Objectives: After studying this paper the students will know –

- The Organization of the State and Central Police
- Police Station and its management.
- Techniques of crime investigation and prevention adopted by the police and other authorize

Unit – I: Introduction to Fundamentals of Police Administration

- History of Police and Policing in Modern India (1857 onwards)
- Role of Police in Independent India.
- Constitutional provisions regarding police in India
- Organization and Structure of Police: Types of Police Organization: State Police Civil Police. Armed and other branches, District Police, Police Station and Crime record statistics (State level and National level)
- International Co-operation in Police: International Criminal Police Organization, Police in Police Stations and Investigation, Central Police Organizations and their role
- Police Reforms and Modernization

Unit – II: Training and Orientation

- Recruitment and Training of Police
- Police Act of 1861 – Recent State enactments
- Police Reforms in Independent India since 3rd National Police Commission Recommendations (NPC), 1979, State Police Reform Commission and 3rd National Police Commission Report
- Police Report in 1990s: Riberio Committee Report, Padmanabaiah Committee Report, N.H Vohra Committee Report and PIL by Sh. Prakash Singh (Ex DGP, BSF)

Unit - III: Police Investigation: Procedures and Function

- Executive powers and duties of police officers in the investigation of crime and Procedure in investigation
- Investigation of crimes and relations with Courts/Magistrate Specialties of Investigation., Homicides, Property Offences, Crimes against women, Economic Offences, Communal violence and Custodial violence
- Use of technology in crime investigation.
- Citizen's rights during investigation.

Unit –IV: Police Image

- Dimensions of Police accountability in India: Courts, Executive Magistrates, State Government, CAO and Citizens/Community
- Police public relations in India and abroad: Peace Committee, Village Police system, Koban (Japan), Police Board (UK) and Sheriff (USA mode)
- Participation of public in crime prevention
- Programmes for redressal of Public grievances.

Suggested Readings

1. Banerjee, D, 2005, Central Police Organization, Part I & Part II, Allied Publishers. Pvt. Ltd.,
2. Doval Ajit and Lal BR, 2010, Manas Police Security Year Book 2010-2011, Manasn Publications.
3. Earle Howard H. 1970, Police Community relations, Charles C. Thomas Publisher.
4. Ghosh Gautam, 2007 Police Accountability at the Cutting Edge Level, APH Publishing Corporation.
5. Guharoy J T, 1999, Policing in the 21st Century Indian Institute of Public Administration.
6. Gupta, Anandswarup, 2007, Crime and Police in India, Sahitya Bhavan, Agra.
7. Hall Englewood Cliffs.
8. Indian Police Journal published by Bureau of Police Research and Development. Police Manual.
9. James, Vadckumchery, 1998, Crime, Police and Correction, APH Publishing C., New Delhi.
10. Justice Mallimath Committee on Criminal Justice Reforms, Universal Law Pub, 2003.
11. K. Padmanabhaiah Committee on Police Reforms, 2001.
12. Mayhill, Parnela D, 1998 Police – Community relations & administration of justice, Prentice
13. Misra K.K., 1987, Police Administration in Ancient India, K.K. Publications.
14. Ramanjam, T, 1992, Prevention and Detection of Crime, Madras Book Agency.
15. Reporter of National Police Commission.
16. Singh Soibam Ibocha, 2007 Community Policing, Akansha Publishing House, New Delhi
17. Srivastava Aparna, 1999, Role of Police in Changing Society, APH Publishing House.

PAPER 1.5

CRIMINAL JUSTICE SYSTEM

Learning Objectives: After studying this paper the students will know –

- The meaning and importance of criminal Justice System.
- The various wings of the system and their role.
- The importance of coordination of each to another.

Unit -I: Introduction to CJS

- Criminal Justice System: Meaning, Purpose and Social Relevance
- Legislative Process and Criminal Justice System.
- Historical Evolution – Overview of Criminal Justice Sectors National and International Perspective.
- Accusatorial and Inquisitorial Systems of Criminal Justice System.
- Co-ordination in Criminal Justice System.

Unit -II: Police System

- Organization set up of Indian Police in Modern Society
- Objective of Police System: Maintenance of Law and Order, Investigation of Crimes, Protection of Life, Production of Property Rights and Prevention of Crime
- Functions of Police Organizations interface with the community, Executive, prosecution and judiciary. Police Image.

Unit -III: Judicial System

- Importance of judicial system in modern society.
- Judicial Administration in India. Presiding Officer, Prosecutor and Defence Counsel.
- Salient Feature of India Judicial System : Independence, Public and Fair Trial.
- Fundamental Elements in Judicial Functioning: Due Process, Speedy Trials and Access to Justice.
- Alternative Dispute Redressal System (ADRS): Mediation, Lok Adalat, Village Nyaya-Panchayat.
- Judicial Administration: Modernization and Reforms.
- Prosecution System: Meaning, Purpose and Relevance, Need for Independent Prosecuting Agency
- Prosecution Organization in the States, Relationship between Police and Prosecution, Prosecution in Lower Court and Prosecution in Appellate Court.

Unit -IV: Prison System

- Historical Development of Prison
- Objectives of Imprisonment
- Types of Prisons
- Prison Organization in India
- Modernization of Prisons

Suggested Readings

1. Ahuja Ram, 2000, Criminology, Rawat Publications, Delhi.
2. Albanese Jay S. 2000, Criminal Justice Allyn and Bacon.
3. Banerjee,D, 2005, Central Police Organizations Part I and Part II, Allied Publishers Pvt. Ltd.
4. Commonwealth Secretariat, 2002, Crime and Social Justice, London.
5. Ebbe, Obi N. Ignatius, 2000, Comparative and International Criminal Justice
6. Guharoy Jay Tilak, 1999 Role of Police in Changing Society APH Publications.
7. Gupta, Anand Swarup, 2007, Crime and Police in India, Sahitya Bhavan, Agra.
8. Introduction to Criminal Justice, Goodyear Publishing Company. Inc.
9. Justice Malimath Committee on Criminal Justice Reforms, Universal Law Publication 2003.
10. K. Padmanabhaiah Committee Police Reforms, 2001.
11. Mehrajud-din Mir. 1984, Crime and Criminal Justice System in India, Deep and Deep Publications, New Delhi.
12. Misra, K.K., 1887, Police Administration in Ancient India, K.K. Publications.
13. Paranjape NV, 2007, Criminology and Penology 2nd edition, Central Law Publications, Allahabad.
14. Phelps Thomas R, Swanson Charler R. Kenneth Jr and Evans R 1979.
15. Reisd, Se Titus, 2006, Crime and Criminology. Mc. Graw Hill Publishers.
16. Schmalleges. Frank, 1999, Criminal Justice today, Prentice Hall, New Jersey.
17. Sharma, P.D., 1985, Police and Criminal Justice Administration in India. Uppal Publishing House in Delhi.
18. Shweta, 2009, Crime, Justice and Society MD Publications.
19. Srivastava Aparna, 1999, Policing in the 21st Century, Indian Institute of Police Administration.
20. System: Policing, judiciary and Corrections, Butterworth, Boston.

Lab Based Practical

PAPER 1.6

POLICE SCIENCE

1. **Police Science:** FIR, Scene of Crime, Search, Panchnama, Inspection, Sketching, Report Writing, Photographing, Evaluation of Evidence, Physical Clues, Reconstruction of Scene of Crime and Lifting, Preservation, Forwarding and Transportation to Concerned Expert.
2. **Case Studies:** Murder/ Homicide, Theft, House Breaking, Scene of Traffic Accident, Poisoning Cases, Accidental Deaths and Injuries Cases.
3. **Psychological Practical:** Sensation, Perception, Attention, Illusions, Memory, Imagination and I.Q. Assessment.
Laboratory Analysis of Pattern Evidence:
4. **General guidelines for lifting of crime scene exhibits.**
5. **Photography and sketching of crime scene.**
6. **Collection of evidence in case of rape and murder.**
7. **Collection of clues in hit & run accident case including marking of skid marks and examination of Head Lights.**
8. **Cases involving firearms**

***Evaluation of Practical Journal**

**** Viva-Voce**

SEMESTER – II

PAPER 2.1

FORENSIC PRINTS AND IMPRESSIONS

Learning Objectives: After studying this paper the students will know –

- The biological aspects and the fundamental principles of fingerprinting.
- Fingerprints patterns and methods of identification.
- The physical and chemical techniques of developing fingerprints on crime scene evidence.
- The significance of foot prints.
- Fundamentals of Forensic Anthropology

Unit- I Introduction to Print Science

- Meaning, Concept and Importance prints and impressions in forensic science
- Biological aspects, Skin Structure and ridge formulation
- Principles of Finger Prints
- Historical data of Fingerprints and Role of pioneers.
- Recording Techniques: Meaning and importance of recording techniques and its classification
- Classification Henry's ten digit classification system, Battley's Single digit system.
- Use of A F I S and I A F I S and contemporary innovations in storage and retrieval of fingerprints.

Unit-II Development of Fingerprints and footprints

- Development of Finger Prints from various Surfaces by powders, Gases and Liquids; Photography
- Lifting and Marking-up as evidence; Ridge characteristics, comparison of fingerprints,
- Legal compliance; Poroscopy and edgeoscopy.
- **Footprints:** Meaning, concept and importance of footprint in criminal investigation
- Footprints; classification, modes of recording, comparison and lab analysis.
- Surface footprints: Meaning, tracing and its importance

Unit-III Blood stain pattern and Forensic Odontology

- Meaning and importance of blood stains and patterns
- Utility, physical properties of blood, Angle of impact, points of convergence, origin, Low, Medium, High Velocity blood stains,
- Crime Scene examination, Photographic documentation of bloods pattern.
- Forensic Odontology- Meaning, Development & Uses, Human dentition, Dental Identification.

Unit-IV Forensic Anthropology

- Meaning, concept, Scope, Utility and importance of Forensic Anthropology
- General Idea of human Skeleton, male and female skeleton
- Identification by Facial imaging, Skull to Photo Super imposition,
- Facial reconstruction, photographic Comparison.

Suggestive Reading:

1. Introduction to Forensic Sciences Second Edition : William J Eckert
2. Criminalistics and Scientific investigation: Fredric Cunliffe & Piazza
3. Modern Criminal investigation : Soderman & O'Connell.
4. Synopsis of forensic Medicine : Narayan Reddy.
5. Modi's Medical Jurisprudence and Toxicology : Dr.N.J.Modi
6. Laws of Prints and Impressions : Venkiah.
7. Criminalistics- Introduction to forensic Science : Richard M Safferstin.
8. Criminal Investigation, Practical fingerprinting, thumb impression : Bridges B.C,
August Vollmer and M.Monair

PAPER 2.2

TECHNIQUES OF CRIME INVESTIGATION

Learning Objectives: After studying this paper the students will know –

- The methods of securing, searching and documenting crime scenes.
- Use of technology in crime scene management.
- The art of collecting, packaging and preserving different types of physical and trace evidence at crime scenes

Unit-I Introduction to Police Science.

- Meaning, concept and importance of Police Science
- Application of Science & Technology in Police Work: Use of computers, video conferencing and role of media in police science and police work.
- Investigation- meaning, legal provisions and compliance by the police.
- Modes of investigation Use of informers, crime charts / maps, MOB Records and Criminal intelligence.
- Scientific aids and equipment in police work: Scientific aids and equipment in police work: I O's Kit, Invisible rays, Metal detectors, portable x-ray units and Photographic Kit, their contents and uses.
- Scene of Crime: Meaning & types of Crime Scene-Indoor and outdoor.
- Methods of Search, recording; sketching, photography and videography and Panchanama.

Unit-II Scientific methods of investigation

- Scientific methods of investigation of Homicides, Suicides, Unnatural deaths and Motor vehicle accidents.
- Investigative techniques of Drug related offences;
- Forgery and Securities
- Offences relating to Smuggling of Antiquities.

Unit-III Physical clues and Forensic Evidences

- Meaning and importance, identification various clues in the scene of crime
- Physical clues and types
- Chemical clues and types
- Biological and serological clues and types

Unit-IV Scientific techniques of collection of Clue materials

- Meaning, concept and importance of clue materials and its scientific technique of collection
- Types: Biological, Physical and chemical.
- Location and identification from the crime scene, victim and the suspects.
- Method and procedure of collection, preservation and transportation of physical clues to the experts. Scientific Interrogation of suspects, techniques and limitations; Methods and techniques employed in Interviewing of witness; use of portraits, Computerized portrait building system.

Suggestive Readings:

1. Prevention and Detection of Crime – P. Ramanujam
2. Modern Criminal Investigation – Sodderman and O'Connell 3.
Techniques of Crime Scene Investigation – Stevenson &
Wendell. 4. Elements of Criminal Investigation – Weston and
Walls
5. Criminal Investigation- Hans Gross.
6. Hand Book of Forensic Science – K.P.A. Publication
7. Criminal Investigation – O'Hara
8. Scientific Aids to Investigation-Giriraj Shah (1999) Anmol Publicatins, New Delhi.

PAPER 2.3
VICTIMOLOGY AND VICTIM ASSISTANCE

Learning Objectives: After studying this paper the students will know –

- The importance of Victimology.
- The causes and types of victimization.
- The significance of criminal justice system in compensation and victim mitigation.

Unit -I: Introduction to Victimology

- Victim and Victimization : Concept, Nature & Related Issues
- Historical Development of Victimology
- Key Concepts in Victimology: Victim Precipitation, Victimization Proneness, Victim Responsiveness, Victim Psychology
- Psycho-dynamics of Victimization
- Primary Victimization, Secondary Victimization, Tertiary Victimization, Victim Vulnerability
- Victimless Crimes: Meaning and types.

Unit – II: National and International Concern for Victims of Crime

- U.N. Declaration on Basic Principles of Justice for Victims of Crime and Abuse of Power (1985)
- World Society of Victimology
- National Policy Concerns for Victims of Crime- Communal Strife, Caste Violence etc
- State Initiatives and Crime Victims
- Judicial Response and related legislations.

Unit – III : Patterns of Victimization

- Victims of Crime: Meaning and concept
- Victims of Abuse of Power: Meaning, concept, types and elated legislation
- Women Victims – Dowry, Battered women, Rape and other kind of sexual harassment and elated legislation
- Child Victims: Meaning, Types and related legislation
- Victims of group violence.

Unit – IV: Victim Compensation

- Meaning, concept and importance of victim compensation
- Restitution: meaning, concept and its importance
- Ex-Gratia Grant: meaning, concept and its importance
- Compensation by Insurance Companies
- Compensation for Victims of Crime and abuse of power
- Victim Compensation- An International Perspective
- Victim Assistance: Role of citizens and voluntary organizations
- Preventing Victimization Assisting victims during crime investigation and trial
- Legal aid to victims of crime – Counseling, guidance and rehabilitation of special kinds of victims of crime and child abuse, National Organization for Victim Assistance (NOVA), USA & Victim Witness Assistance Programs (V W A)
- Introduction to Restorative Justice System

Suggested readings

1. Devasia, V.V, 192, Criminology, Victim logy and Corrections, Ashish Publishing House, New Delhi
2. Drapkin Israel and Viano, Emilio, 1973, Victimology: A new focus Lexington Books.
3. Geiser, Robert. L, 1979, Hidden Victims, Beacon Press, Boston.
4. Mc Donald, William F, 1976, Criminal Justice and the Victim, Sage Publications, London.
5. Parsonage, William H, 1979, Perspectives on Victimology, Sage Publications
6. Rajan, V.N, 1981, Victimology in India: An Introductory Study, Allied Publishers, New Delhi.
7. Schur, Edwin, M, 1965, Crimes without victims, Prentice Hall. Inc.
8. Shapland, Joanna, Willmore Jon, Duff Peter, 1985, Gower Publishing Company Ltd.
9. Singh Makkar, S.P, 1993, Global perspectives in Victimology, ABC Publications, Jalandar.
10. Sparks, Richard F, Genn, Hezel G, Dodd, David. J, 197, Surveying victims, John Wiley and Sons' Ltd.
11. Walklate, Sandra, 1989, Victim logy: The victim and the criminal justice process, Unwin Hyman Ltd.

PAPER 2.4

RESEARCH METHODOLOGY AND STATISTICS

Learning Objectives: After studying this paper the students will know –

- The fundamental concepts of Scientific Research.
- Application and importance of statistics in the field of Criminology/Forensic Science.
- Various measures for providing statistical proof of the research study
- Research Report Writing.

Unit I: Introduction of Research Methodology

- Definitions, Meaning, Nature and Purpose of Criminological Research
- Types of Research Methods
- Scientific Attitudes in the Criminological Research
- Theory formation: Inductive and Deductive Reasoning Theories
- Formation of Research Problem

Unit –II: Research Design

- Meaning and Types of Research Design
- Hypothesis: Definitions, Types and Sources
- Main steps in Social Research Types
- Review of Literature
- Procedure: Formulation of Research problems, selecting of topic & place

Unit – III: Sampling Techniques & Types of Data Collection

- Merits and De-merits of Census and Sampling Techniques
- Concept of Probability and Non-Probability
- Types of Sampling
- Collection of Primary Data
- Collection of Secondary Data
- Methods of Data Collection
- Content Analysis

Unit – IV: Parametric, Non-Parametric Tests and Report Writing

- Variables, Scales of Measurement, Measurement of Central Tendency, Measures of Dispersion, Measures of Asymmetry,
- Regression, Hypotheses, Procedure of testing Hypotheses, Type I & II error,

- Parametric Tests: 'z-test', 't-test', χ^2 test, 'f-test'
- ANOVA, ANOCOVA, Sign – test, Fisher- Irwin Test
- Interpretation and Report Writing: Meaning of Interpretation, Techniques of Interpretation, Significance of Report Writing, Major Steps in Report Writing and Types of Report Writing

Suggested Readings

1. Bailey Carol A. 1996, A Guide to Field Research, Pine Forge Press, California.
2. Choudhary, C.M. 1998, Research Methodology, Sublime Publications, Jaipur
3. Coolican, Hugh, 1990, Research Methods and statistics in Psychology, Hodder & Stoughton, London.
4. Hagan, Frank E, 1982, Research Methods in Criminal Justice and Criminology, Macmillan Co. New York.
5. M. Mood and Gravel, 2004, introduction to the theory of statistics, Mc Graw Hill Book Company.
6. Maxfield, Michael G & Babbie, Earl, 2000, Research Methods for Criminal Justice and Criminology, 3rd edition, Wadsworth Thomson Learning.
7. Methods in Behavioral Research, 1981, Cozby, Paul C. Mayfield Publishing co., London.
8. Rubbin, Allenn & Babbie, Earl. 1993, Research Methods for Social Work, 2nd, edition, Brooks/Cole Publishing Company, California.
9. Sessan, Klaus & Kerner, Hans Jurgen, 1991, Developments in Crime and Crime Control Research, German Studies on victims, Offenders and the Public, Springer-Verlag Publications.
10. Spiegel R. Murray, 2004, Theory and Problems of statistics, Mc Graw Hill Book Company.
11. Thakur, Devendra, 2003, Research Methodology in Social Sciences, Deep & Deep Publications, New Delhi
12. Victor Jupp. Pamela Davis & Francis, 2000, Doing Criminological Research, Sage Publications, New Delhi.

PAPER: 2.5

HUMAN RIGHTS AND CRIMINAL JUSTICE SYSTEM

Learning Objectives: After studying this paper the students will know –

- The meaning, nature, theories and historical development of Human rights
- Provisions of human rights in Indian constitution and in international UN conventions and charters
- To the salient features, powers and functions of SHRC and NHRC with Famous Case studies

Unit-I: Human Rights in the Criminal Justice Administration

- Meaning, Nature and Scope of Human Rights
- Theories of Human Rights.
- Historical Development of Human Rights.
- Universal Declaration of Human Rights 1948.
- Human Rights and Criminal Justice System in India.

Unit-II: Provisions of Human Rights

- International Convention- U.N Charter and Universal Declaration of Human Rights.
- International Bill of Human Rights.
- International Covenant on Civil and Political Rights.
- International Covenant on Economic, Social and Cultural Rights

Unit-III: Human Rights and the Constitution of India

- Relevant Provision under BNSS 2023
- Relevant Provision under BSA 2023
- Human Rights issues in India.
- Specific Rights: Right to Life, Liberty & Equality , Right to Fair Hearing in the Court, Right to Freedom from torture & other Cruel and Inhuman Degrading Treatment, Right of the Child, Women's Rights, Prisoners Right and Victims Right.

Unit-IV: Protection of Human Rights

- Preventive Measures for the Protection of Human Rights.
- Human Rights Organization, Commission of Committees and State Human Rights Commission.
- Role of Central & State Government in Formation of Committee Members.
- Powers, Functions of NHRC and SHRC, Recent Cases Dealt by NHRC & SHRC, Recommendation of NHRC & SHRC

Suggested Readings

1. Awasti, S. K, 2004, Law Relating to Protection of Human Rights.
2. Deshta, Sunil, Fundamental Human Rights.
3. Gupt, D N, Human Rights
4. Mathur, K M, Crime, Human Rights & National Security.
5. Taylor & Francis, Encyclopedia of Human Rights.

Lab Based Practicals

PAPER 2.6

FORENSIC SCIENCE

Simulated Crime Scene Exercise on:

1. Development of latent finger prints, lifting, preservation and comparison of finger prints.
2. Handling & marking of documents for examination.
3. Detection and decipherment of alterations in documents.
4. Lifting of footprints from different surfaces.
5. Determination of direction of impact on glass.
6. Comparison of soil samples by microscopic and density gradient measurements.
7. To identify whether firearms are country made or factory made.
8. Lifting of gun-shot residues on shooter's hand.
9. To open and draw the diagram of given cartridge & mark it's components for identification.
10. Identification of various components of firearm.

*Evaluation of Practical Journal

** Viva-Voce

SEMESTER III

PAPER 3.1

Forensic Medicine and Toxicology

Learning Objectives: After Studying this students will know,

- Meaning Development and importance of Personal Identification
- Types of wounds death Changes after Death
- Importance of ascertaining various Body Fluids, Including DNA Profiling.

Unit I - : Forensic Medicine

- Meaning, Definition, Nature and Scope.
- Inquest Coroners, Magistrate and Police.
 - 1) Identification of Dead and Living Person.
 - 2) Medico-Legal Autopsy.
 - 3) Identification of Decomposed and Mutilated Bodies.
 - 4) Super Imposition.

Unit II- Medico-Legal Importance of Wounds, Injuries and Death

- Types, Modes and Signs of Death.
 - 1) Medico-Legal Importance of Death.
 - 2) Medico-Legal Importance of Violent Deaths.
- Wounds and Injuries, Meaning, Types
 - 1) Medico-Legal Importance of Wounds and Injuries.
 - 2) Defense Wounds.
 - 3) Wounds and Injuries in Rape Cases.
- Abortion and Infanticide, Meaning, Causes and Classification.
- Determination of Age, Sex and Height through Bones.
- Medico-Legal Laboratory Services.

Unit – III: Taxonomy of Poisons and Medico-Legal Importance of poisons

- Meaning, Definition, Nature, Scope, Medico-Legal Importance of Toxicology.
- Classification of Poisons.
 - 1) Corrosives 2) Irritants
 - 3) Inorganic 4) Mechanical

- 5) Organic 6) Neurotics and etc.
- Routes of Administration and Elimination.
- Actions of Poisons.
- Factors Modifying the Actions of Poisons.
- Evidence of Poisoning.
- Antidotes and Stomach Wash Tube.
- Isolation, Identification and Estimation of Poison from Viscera.

Unit – IV: Function and Fatal Dose of Poisons

- Characteristics of Poison, Fatal Dose, Fatal Period.
- Post-Mortem Appearance and Analysis of the Following Poison (Autopsy Examination).

1) Arsenic	2) Opium
3) Bhang	4) Potassium Cyanide
5) Endrine	6) Strychnous Nux Yomica
7) Snake Poison	8) Pesticide

Suggested Readings

1. A.K.Mant; Taylor's principles & practice of medical jurisprudence, Wingking Tong co. ltd., (2003)
2. B.V.Subrahmanyam; Modi's Medical jurisprudence, Lexis Nexis butterworth, (1988)
3. Byrd J H& Castner JL; Forensic Entomology, The utility of Anthopods in legal Investigation, CRC Press USA(2000)
4. C.H. Polson; Essentials of forensic medicine, Pergamon press, (1973)
5. C.H.Wecht; Legal medicine annual , ACC Press, (1970)
6. Catts E.P & Haskell NH; Entomology & death- A procedural guide, Joyce's print shop (1990)
7. D.J.Maio & V.J. Maio; Forensic pathology, CRC press, (1993)
8. Dr. P.V. Rama Rao;Essentials of microbiology, CBS Publications, (2004)
9. I.Gordon & H.A.Shapiro; Forensic medicine, Longman group ltd., (1982)
10. Nandy; Principals of forensic medicine, New central book agency, (1995)
11. O.W. Richards & R.G.Davis; General text book of Entomology, Chapman & hall ltd, (1973)

Paper 3.2

Private Detective & Security Management

Learning Objectives

- The Importance of Private Security and Vigilance
- The tools required for security
- The Significance of Disaster Management

Unit-I: Introduction to Private Detective

- Introduction, Meaning & Definition
- Types of Investigators
- Comparing Law Enforcement & Private Detectives
- Power/Responsibility and Danger/Risk of Being a Private Detective.

Unit – II: Introduction to Security and Vigilance

- Meaning, Concept, Evolution & Importance.
- Security Programmes.
- System & Elements
- Series of Operational Measures against Security Hazards.
- Physical, Personal & information Security.
- Security Officer, Hardware's & Alarm, Procedures & Controls
- Security Programmes Planning.
- Specific Planning Principles on Loss Control Efforts.
- Security Planned Development.
- Risk Management.

Unit-III: Civil Aviation Security

- Role and Importance
- Action Plan to Protect and Secure Airports, Aircrafts, Vital Installation, Passengers and other Materials.
- Security Management of Hijacking, & Sabotage,
- Bombs and Bomb Threat.
- Hostage & Negotiation.

Unit-IV: Security and Disaster Management

- Meaning and Types of Disaster
- Anti-Disaster Management/ Committee
- Warning and Evaluation Plans.
- Head Count and Its Importance in Emergency.
- **Fire Brigade and Safety**
- Rescue and Relief Operation.
- Various Physical and Chemical Equipment's for Dousing Fire.

Suggested Readings

1. Anderson :Bank Security.
2. Strobi: Crime Prevention through Physical Security
3. John :Fundamentals of Training for Security Officers
4. David and Rugger: Industrial Security.
5. Tobiss:Locks, Safe and Security:
6. Faul Faque Security Investigation Handbook:
7. Peel: Story of Private Security
8. Private Security Regulation (Bill) 2005.

Paper 3.3

Crime Scene and Forensic Photography

Learning Objectives

- Method securing, Searching, Documenting Crime Scene
- The art of video graphing and Photographing different types of Physical and Trace evidences from Scene of crimes.
- The Legal Importance of Police photography
- The tools and techniques for analysis of different types of Crime Scene evidence by the use of Digital Photography.

Unit-1: Introduction to Photography

- History and Development of Photography. Basic principles and techniques of Black & White and color photography, Photography in indoor and outdoor scene of crime; aerial photography, Aperture and focus adjustment. Significance of Photography in Forensic Science.
- Photo prints: Developing techniques and methods of photography, Different kinds of developers and fixers, modern developments in photography, linkage of cameras and film negatives.

Unit-2: Types of Camera and Photographic methods

- Introduction, Photographic instruments, fundamentals of light and vision, light source, geometry and photometry of image formation, types of camera, features, camera movement, and Optical filters.
- Specialized photography - UV, IR, transmitted light and side light photography, close-up, midrange and bird-eye view photography, trick photography, contact photography. Digital photography, software for digital photography, file formats for digital photographs – jpg, gif, bmp, tiff, mpeg, etc.
- Radiography, Photomicrography, microphotography, photography using scientific equipment, juxtapose charts and demonstrative photographs, photographs as secondary evidence, case studies.

Unit-3: Surveillance Photography

- Surveillance Photography: its methods, techniques and tactics. Surveillance photography – Cameras and accessions for surveillance photography moving surveillance on foot, 2 person foot surveillance moving.
- surveillance with vehicles, fixed surveillance, Use of photography in reconstructing the scene of crime and its presentation in the court of law. Image magnification, U and I. R. illumination, Art factual evidences (Bloodstain, fingerprint, imprints, and micro evidences).

Unit-4: Digital Photography and Advance Technologies

- Digital water marking and digital imaging, photogrammetric, Videography/ highspeed Videography, crime scene and laboratory photography.
- Photography of objects- Close up, normal, telephoto and processing. Aerial Photography.
- Remote sensing & Geo-mapping.
- 3-D Photography/Videography

Suggestive Reading

1. Blitzer, H L And Jacob, Forensic Digital Imaging and Photography
2. Henry Horeustein: Colour Photography- A Working Manual Little Brown Co Boston (1995)
3. B.H.E Jacobson, Roy GG Attridge; The Manual of Photography, Focal Press, London (1988)
4. Jahne B; Digital Image Processing, Heidelberg Springer (1996)
5. Watkinson j; Art o Digital Video, Oxford Focal Press.

PAPER 3.4
FIELD VISITS – LOCAL INSTITUTIONS VISITS.
(CRIMINOLOGY & FORENSIC SCIENCE SUBJECT RELATED INSTITUTES)

UNIT-I

- 1) Visit to Prison Institution
- 2) Visit to Sate Home for Men
- 3) Visit to Sate Home for Women.
- 4) Visit to Observation Home.

UNIT-II

- 1) Child welfare Committee
- 2) Visit to Juvenile Home (Recreation)
- 3) Visit to Juvenile justice Board
- 4) Visit to Juvenile Special Home.

UNIT-III

- 1) Visit to Court Proceeding
- 2) Visit to Civil Court.
- 3) Visit to Criminal Court.
- 4) Visit to Lokayukta Office.

UNIT-IV

- 1) Visit to Local Police Station
- 2) Visit to S. P. Office.
- 3) Visit to NGOs.

UNIT-V

- 1) Local Crime Record Bureau.
- 2) Visit to After-Care Services.
- 3) Visit to Hospital for Post-Mortem Cases.

3.5 A Specialization Paper:

Forensic Science –I (Physical Sciences)

Learning Objectives: After studying this paper the students will know –

- The various divisions involved in processing of physical and trace evidence.
- The tools and techniques for comparison of different types of crime scene evidence.

Unit-1

- Meaning and application of Physical Science in Forensic Work.
- Establishment and functioning of the Physical and Fire Arm Sections of the Forensic Science Laboratory.

Unit 2

- Physical matching and comparison of tool marks, cut ends and torn ends.
- Examination of fibers, fabrics and ligature fibers.
- Physical Matching and comparison of Footwear marks and Tyre marks, severed objects for mechanical fit, restoration and identification of tampered identification marks.

Unit-3

- Physical matching and comparison of glass by the use of physical matching, mechanical fit and refractivity. Examination and comparison of soil, dust, debris, ash. Classification and determination of the origin of paints.

Unit-4

- Classification of Fire arms and ammunition. Examination of the fire arm for its functionality and safety.
- Identification of the fire arm from the fired Cartridge Cases and Bullets. Range and angle of fire estimation, identification of the shooter.

Suggestive Reading:

1. Criminal Investigation- J. Horson.
2. Criminalistics-An Introduction to Forensic Science- Safferstein, Richard M, (1990) Prentice Hall, NJ.
3. Crime investigation- Paul L Kirk –Edited by John I Thornton (1974) Wiley and Sons, NY.
4. Criminal investigation- Soderman and O'Connell.

5. Forensic Sciences- Eckert, William.
6. Criminalistics: Cunlife and Piazza.
7. Forensic Science in Investigation and Trails- Sharma B.R
8. Introduction to forensic Science by B.S.Naber.
9. Physical Manual of the Directorate of forensic Science, Govt of India.
10. Ballistic Manual of the Directorate of forensic Science, Govt of India

3.5 B Specialization Paper:

Forensic Science- II(Biological Sciences)

Learning Objectives: After studying this paper the students will know –

- The significance of serological evidence
- The importance of biological fluids – blood, urine, semen, saliva, sweat and milk – in crime investigations.
- The usefulness of skeletal remains, Paper and poisonous plants in forensic investigations.
- The forensic importance of DNA profiling.

Unit-1

Meaning and application of Biological Science in Forensic Work. Establishment and functioning of the Biological, Serological and DNA Section of the Forensic Science Laboratory. Examination of Blood Stains. Grouping and Typing of blood.

Unit-2

Examination of Semen and Seminal Stains. Examination of Saliva and Saliva Stains, Urine Stains, Fecal Matter and Fecal Stain, Hair and Fiber Examination.

Unit-3

Human Skeleton Examination, Various Bone Analysis, Mutilated Human Bodies.

Unit-4

DNA Isolation from Bio specimen and Quantification of DNA. Preparation of DNA Profile.

Significance of Biological Evidences and Bio Sample collection.

Suggestive Reading:

1. Criminal Investigation- J. Horson.
2. Criminalistics-an Introduction to Forensic Science- Safferstein, Richard M, (1990).
3. Crime investigation- Paul L Kirk –Edited by John I Thronton (1974).
4. Criminal investigation- Soderman and O'Connell.
5. Forensic Sciences- Eckert, William.
6. Criminalistics: Cunlife and Piazza.
7. Forensic Science in Investigation and Trails- Sharma B.R

3.6 Open Elective Course

Police Science

Learning objectives

- Students will know the Administration of Police
- Creates awareness among students to get familiar with Police functioning's

Unit 1 Introduction to police Administration

- Meaning and Concept of the Police
- History of Police Administration
- Development of Police System
- Recruitment and training of Police Personal

Unit II Organizational Setup of Police

- Central Police System
- State Police System
- Special investigation Wings CBI, Interpol, COD etc.
- Lokayuktha

Unit III Police Station and its Work

- Town and rural Police System
- Traffic police
- Women police

Unit IV Prevention of Crime

- Beat and Patrolling its Meaning and importance
- Community Policing
- Police Citizen Relationship in Crime Prevention
- Police Citizen friendly apps, Smart Policing.

Suggested Readings

1. Criminal Investigation- Hans Gross
2. Elements of criminal Investigation- Weston and Walls
3. Giriraj Shah – Police Training Anmol Publication, New Delhi 2002
4. Hand Book of Forensic Science- KPA publications
5. K M Mathur “ Police Investigations” deep and Deep Publication, New Delhi

IV SEMESTER

Paper 4.1

Forensic Geographical Information Science

Learning outcome

- Students will study the concept of GIS and GPS
- The Application of GPS and GIS in Investigation
- Crime Prevention through Environmental Design

Unit-1

Introduction, definitions, terminology and concepts of GIS and GPS; Criminological entities, attributes and significance; its typology and relationship to Criminology.

Unit-2

GIS architecture: Components of GIS, GIS workflow, theoretical framework, categories, levels and scales of measurement, its interface to crime mapping; Calculation of crime incidence, crime surveying with GIS and charting criminocentric „Hot-Spots“ using GPS. Spatial crime data modeling. Introduction, sources of crime/criminal spatial data, stages, graphical representation of distribution of types of crimes/criminals.

Unit-3

GIS data management systems: introduction, functions and components of DBMS, GIS related crime data file management, simple list, ordered sequential files, and indexed files.

Introduction to network, LAN, WAN, MAN. Introduction to internet, applications of internet, dialup connection and direct connection to internet, protocols(HTTP, FTP, Telnet).

Internet addressing – IP address, domain name, URL, world wide web, applications of www. Introduction to email, Browser, uses of browser, contents of browser with respect to internet explorer, types of browsers.

Unit-4

Introduction to HTML, structure of HTML, basic tags for text designing, inserting an image, background image, background image, background color, paragraphs, hyperlinks, tables, frames and forms.

References:

1. Borough, P.A (1986) „Principles of GIS for land resources“
2. Chrisman, N.R. (1997) „Exploring GIS systems“
3. Krishnan N, Windows and MS Office with Database Concepts, SciTech Publications.
4. Thomas A Powell, HTML, TMH publications. Anji Reddy (2001) „Remote sensing and GIS)

Paper 4.2

Cyber Crimes and Cyber Laws

Learning objectives

Students will study the nature of Cybercrimes and its impact on Society

- Nature of Cyber Crimes and Challenges
- Investigation of Cyber Crimes.

Unit-I: Introduction to Cyber Crime

- Meaning, Definition of the Cyber Crime.
- Types of Cyber Crime.

Unit-II: Understanding of Computer

- Computer as an Object.
- Computer as a Subject.
- Computer as an Instrument.
- Computer as a Incidental.

Unit-III: Investigation of Cyber Crime

- Perpetrators of Cyber Crime.
- Modus Operandi of Cyber Crime.
- General Tips for Investigations.
 1. Nature of Crime Committed.
 2. Under Which Section of IPC and IT Act 2000 it comes.
 3. Initiate the Investigation
 4. What Evidence to be collected
- Online Investigation Tools.
- Other Investigation Tools.

Unit-IV: Search, Seizure, Preservation and Packing

- Preparing for Search and Completing the Search.
- Precaution during Search and Seizure.
- Packing, Transportation and Storing the Seized Computers.
- Guidelines for Preserving and Submitting Computer Hardware Evidence (CPU).
- **Relevant Section of IT Act 2000, ITAA 2008 and Punishment**

Suggested Readings

1. Carter, D. Katz: Computer Crime: An Emerging Challenge for Law Enforcement.
2. Denning, Peter. J.: Computers Under Attack: Intruders, Worms & Viruses.
3. Hoffman, L.: Cryptography Policy and Technology Trends.
4. Atul Jain: Cyber Crime- Issues, Threats & Management.
5. Mohan Singh: Cyber Crime.
6. Paranjape N.V., Cyber Crimes and Law; 2010, Central law Agency, Allahabad.
7. Gupta and Agarwal., Cyber Law; 2012, Premier Publication Company, Allahabad.

Paper 4.3

FORENSIC PSYCHOLOGY

Learning Objectives: After studying this paper the students will know –

- The overview of forensic psychology and its applications.
- The legal aspects of forensic psychology.
- The significance of criminal profiling.
- The importance of psychological assessment in gauging criminal behavior. e The tools and techniques required for detection of deception.

Unit 1: Basics of Forensic Psychology Definitions and fundamental concepts.

Psychology and law; Ethical issues in forensic psychology.

- Assessment of mental competency; Types of mental disorders.
- Psychology of evidence – eyewitness testimony, confession evidence. Criminal profiling.
- Psychology in the courtroom.

Unit 2: Psychology and Criminal Behavior

- Psychopathology and personality disorder. Psychological assessment and its importance. Serial murderers. Psychology of terrorism.
- Biological factors and crime – social learning theories, psycho-social factors, abuse. Juvenile delinquency – theories of offending (social cognition, moral reasoning), Child abuse (physical, sexual, emotional), juvenile sex offenders, legal controversies.

Unit 3: Detection of Deception

- Tools for detection of deception – interviews, non-verbal detection, statement analysis, voice stress analyzer, hypnosis.
- Offender Profiling and violence prediction.

Unit-4 Polygraph

- Polygraph – operational and question formulation techniques, ethical and legal aspects, the guilty knowledge test.
- Narco analysis and brain electrical oscillation signatures – principle and theory, ethical and legal issues.

Suggestive Readings:

1. A.A. Moenssens, J. Starrs, C.E. Henderson and F.E. Inbau. Scientific Evidence in
2. Civil and Criminal Cases, 4th Edition, The Foundation Press, Inc., New York (1995).
3. Richard M Saferstein; Criminalistics, 8th Edition, Prentice Hall, New Jersey (2004).
4. J.C. DeLadurantey and D.R. Sullivan; Criminal Investigation Standards, Harper & Row, New York (1980).
5. E. Elaad in Encyclopedia of Forensic Science, Volume 2, J.A. Siegel, P.J. Saukko and G.C. Knupfer (Eds.), Academic Press, London (2000).

Paper 4.4

Corporate Crimes

Learning Objectives: After studying this paper the students will know –

- Basic Corporate and financial terminology.
- Corporate crimes in India are linked to several other crimes.
- Corporate crimes often have a bearing on national security.
- Types of common corporate offences and their consequences.

Unit- I: Introduction

- Corporate Crimes: Meaning and Nature
- Trends in Corporate Crime
- Types of Corporate Crime
- Impact of Corporate Crime on Society
- Corporate Criminal Liability In India

Unit -II: Bank Frauds

- Introduction to Banking & Indian Financial System
- Banking Regulations (including Codes & Ethic)
- Deposit Accounts
- Loans and Advances (including documentation)
- Security for loans and Advances
- Miscellaneous Services provided by Banks (Including letter of Credit, Performance Guarantee)
- Electronic Banking
- Frauds in Banking Sector

Unit -III: Credit Card Frauds

- Credit Cards – Introduction and Types
- Business Process
- Payment Systems: Domestic and International
- Case Study

Unit – IV: Insurance Frauds

- General Insurance Frauds – Concepts/Areas
- Types of Frauds in Property Insurance/Motor/Health insurance
- Potential types of Frauds with Case Studies

Suggested Readings

1. Anabui, Farhad and Kakabadse, Andrew, 2004, Corporate sabotage, Jaico Publishing House.
2. Blum Richard H, 1972, Deceivers and Deceived, Charles, C. Thomas Publishers.
3. Bologna, Jack, 1984, Corporate Fraud, Butterworth Publishers.
4. Chandra Mahesh, 1979, Socio Economic Crime, N.M. Tripathi Pvt. Ltd.
5. Essential Commodities Act, 1955, 2005, Universal Law Publishing Co. Pvt. Ltd.
6. Ghosh Murrain, 1979, Black money – The case for India, Subarna Rekha, Calcutta.
7. Green Timothy, 1977, The Smuggling Business, Aldus Books, London. internationally, Kogan Page Ltd.
8. Lal Bhure, 2003, Money Laundering: An insight into the dark world of Financial Frauds, Siddharth Publications.
9. Mansukhani H.L, 1975 Smuggler's Paradise and Foreign Exchange Law, Vikas Publishing House Pvt. Ltd.,
10. Nabhi's Income Tax Guidelines and Mini Ready Reckoner, 2009, Anabhi Publication Bare Acts:
11. Oughton, Frederick, 1971, Fraud and White collar crime, Elek Bock Ltd.,
12. Pitchandi N and Sivamurthy A, 1987, Crimes and Security in Banks, Institute of Criminological Research, Education and Services, Madras.
13. Pitchandi Nand Sivamurthy A, 1985, Insurance Frauds, The Indian Society of Criminology, Department of Psychology, Madras.

Paper 4.5 A Specialization

Forensic Science III

(Chemical Sciences)

Learning Objectives: After studying this paper the students will know –

- The services offered by the chemistry section of the Forensic Science Laboratory.
- The method of searching, collecting, preserving and analyzing arson evidence
- The detection of Gold, Alcohols etc.
- The methods of analyzing contaminants in petroleum products
- The classification and characteristics of the narcotics, drugs and psychotropic substances.

Unit-1

- Meaning and application of Chemical Science in Forensic Work.
- Establishment and functioning of the Chemical Section of the Forensic Science Laboratory.

Unit 2

- Fundamentals of chemical analysis.
- Detection and identification of inflammable materials or their residues in the exhibits of fire/arson cases.

Unit-3

- Qualitative and quantitative estimation of ethyl alcohol in various alcoholic preparations. Examination of chemicals used in Trap Cases.
- Examination of corrosive chemicals like hydrochloric acid, sulphuric acid, and nitric and alkalies in crime exhibits of acid/alkali throwing cases.

Unit-4

- Examination of Gold and other metals for qualitative and quantitative estimation.
- Sampling to profile various narcotic drugs of natural or synthetic origin under NDPS Act.

Suggestive Reading

1. Criminal Investigation- J. Horson.
2. Criminalistics-an Introduction to Forensic Science- Safferstein, Richard M, (1990).
3. Crime investigation- Paul L Kirk –Edited by John I Thronton (1974).
4. Criminal investigation- Soderman and O“Connell.
5. Forensic Sciences- Eckert, William.
6. Criminalistics: Cunlife and Piazza.
7. Forensic Science in Investigation and Trails- Sharma B.R
8. Introduction to forensic Science by B.S.Naber.
9. Chemistry Manual of the Directorate of forensic Science, Govt of India.
10. Petroleum Manual of the Directorate of forensic Science, Govt of India.
11. Narcotics Manual of the Directorate of forensic Science, Govt of India.

Specialization
OR
Paper 4.5 B
Questioned Documents

Learning Objectives:

The importance of examining questioned documents in crime cases.

The tools required for examination of questioned documents.

The significance of comparing hand writing samples.

The importance of detecting electronic documents and Forensic Speaker identification.

Unit-I: Introduction

- Meaning, Scope and its Importance in Criminal Investigation.
- Historical Development of Questioned Documents Examination
- Types of Questioned Documents Examination.
- Basic Principles of Document Examination.
- Collection and Preservation of Document Evidence.

Unit-II: Writing Instruments and Materials

- Types of Writing Instruments and Materials
 - 1) Paper
 - 2) Inks
- Forgery:- Meaning, Types and Its Detection.
- Free Hand or Simulated Forgery and Traced Forgery.
- Defects of Free Hand and Traced Forgery.

Unit-III: Hand Writing Comparison

- Meaning and Importance of Handwriting Comparison and Their Identification.
 - 1) Class and Individual Characteristics.
- Standards for Comparison.
- 1) Collected Writings 2) Requested Writings
 - Other Individualities and Their Comparison
 - Factors Affecting the Writings.
 - Identification of Signatures.

Unit-IV: Mechanical Impressions

- Meaning and Importance of Mechanical Impressions and their Comparison.
- Types of Comparison.
- Copying Machines.
 - 1. Photocopier Process
 - 2. Chemical Processes

3. Thermal Copying Processes
 4. Electrostatic Processes
- Examination of Photocopies and Photocopier Identifications.
 - Examination of Other Printing Machines.
 - Reconstruction

Suggested Readings

1. Criminalistics: - An Introduction to Forensic Science, Saferstein Richard.
2. Scientific Examination of Questioned Documents. By Ordway Hilton.
3. Albert Sherman Osborn, (1929) 'Questioned Documents', Boyd Printing Company, the University of California.
4. Questioned documents: Osborne.
5. Examination of documents: Hardless.
6. Introduction to Forensic Sciences- Eckert.
7. Introduction to Criminalistics- Safferstein.
8. Criminalistics: Cunlife and Piazza.
9. Forensic science in criminal investigation and trials: B.R.Sharma.

PAPER: 4.6

Research Dissertation Project

Max.Marks:80+20=100

Duration: 4 Hrs/Week

Credits: 4

Introduction:

Students Research Dissertation is compulsory for the Forth Semester M.Sc. in Criminology and Forensic Science Students. The primary purpose is to contribute new knowledge, insights, or perspectives in the field of criminology and forensic science along its allied disciplines. Students might be discovering new data, developing new theories, or providing fresh interpretations of existing research. Completing a research dissertation allows students to become experts in a specific area of their discipline, which can enhance their academic and professional credentials which helps them to get their suitable placements.

Students gain deep, specialized knowledge in a particular area of their field. This involves exploring existing literature, understanding current debates, and identifying gaps in knowledge. Students develop the ability to critically evaluate research, theories, and methodologies relevant to their topic.

Students learn research skills to design and implement research methodologies, whether qualitative, quantitative, or mixed-methods. This includes collection of data, data analysis, and data interpretation by applying statistical tools, software, data visualization, and qualitative analysis tools.

Students gain mastery in academic writing, structuring a dissertation, citing sources, and presenting arguments coherently.

Students have to work under the assigned Research Dissertation Supervisors, which will be done well in advance in the beginning of III Semester itself.

Course Outcome

- ☐ Students will be exposed to the actual field environment, which cannot be simulated in the classroom and hence creating competent professionals for the future in the relevant fields.
- ☐ Provide possible opportunities to learn, understand and sharpen the real time practical skills required at the job.
- ☐ Exposure to the current technological developments relevant to the subject area of training.
- ☐ Create conditions conducive to quest for knowledge and its applicability on the job.
- ☐ Promote academic, professional and/or personal development. Expose the students to future employers.

Benefits to Students:

- ☐ Advance knowledge and expertise in a particular field.
- ☐ Research skills development and enhance research competence.
- ☐ Critical thinking and problem solving
- ☐ Academic writing and communication
- ☐ Most importantly contribution to the knowledge of the field.
- ☐ Establishing robust networking and collaboration world-wide.

Marks Allotted

The 100 marks allotted to Research Dissertation Project in Fourth Semester. Students will be evaluated at the end of the Semester based on their Dissertation reports and Viva-voce.

Question Paper Pattern

Q.P CODE: 82926

First Semester M.Sc., Degree Examination

March-2025

CRIMINOLOGY AND FORENSIC SCIENCE

Paper: 1.1 Fundamentals Criminology

Time: 3 Hours

Max. Marks: 70

Instructions:

1. Answer the questions from Part A,B and C
2. Part- A. Answer any Five of the following
3. Part- B. Answer any Four of the following
4. Part- C. Answer any Four of the following

Part- A


1. Answer any Five of the following (2x5=10)
- a)
 - b)
 - c)
 - d)
 - e)
 - f)
 - g)
 - h)

Part- B

- Answer any Four of the following (5x4=20)
- 2.
 - 3.
 - 4.
 - 5.
 - 6.
 - 7.

Part- C

- Answer any Four of the following (10x4=40)
- 8.
 - 9.
 - 10.
 - 11.
 - 12.
 - 13.


DR. U.S. MAHABALESHWAR
M.Sc., M.Phil., Ph.D.
Professor & Dean, Science & Technology
Davangere University, Shivangotri,
Davangere-577 007, Karnataka, India.

THE END


Registrar
Davangere University
Shivangotri, Davangere