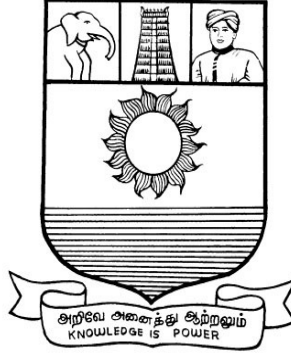


**MANONMANIAM SUNDARANAR UNIVERSITY
TIRUNELVELI, TAMIL NADU, INDIA**



B. Sc. CRIMINOLOGY AND FORENSIC SCIENCE

**Choice Based Credit System (CBCS)
Incorporating the Learning Outcome Based Curriculum Framework (LOCF) Norms with
Syllabus Pattern as recommended by Tamil Nadu State Council for Higher Education, Chennai**

SYLLABUS

From the academic year 2023- 2024 onwards

MANONMANIAM SUNDARANAR UNIVERSITY
TIRUNELVELI, TAMIL NADU, INDIA
Bachelor of Science in Criminology and Forensic Science

Choice Based Credit System (CBCS) with
 Learning Outcome based Curriculum Framework (LOCF) Norms and
 Syllabus Pattern as recommended by Tamil Nadu State Council for Higher Education, Chennai

Scheme, Regulations and Syllabus

Title of the course

Bachelor of Science (B.Sc.) Degree course in Criminology and Forensic Science.

Duration of the course

Three years under semester pattern, with Choice Based Credit System, LOCF Norms and TANSICHE recommended syllabus pattern.

Programme Outcomes for the Course

On completion of the programme, students will be able to comprehend and complete the programme outcomes, such as

Eligibility

Candidates for the Degree of Criminology and Forensic Science should have passed higher secondary examination in Specific group conducted by the Board of Secondary Education, Government of Tamil Nadu or any other equivalent examination prescribed and accepted by the Syndicate / SCAA of the Manonmaniam Sundaranar University, Tirunelveli.

Program Out comes

PO 1	Propose novel ideas towards solutions to contemporary problems justifying with relevant facts and data.
PO 2	Develop scientific outlook and see the relevance of science concepts in all aspects of life.
PO 3	Identify, formulate and analyse complex scientific problems using principles of natural and applied sciences.
PO 4	Comprehend concepts, frameworks and inventions through various learning methods and effectively communicate them to others orally and in writing.
PO 5	Analyse critically the given scientific data, ascribe meaning to them and draw objective conclusions.
PO 6	Developing epithetical concern towards various social problems and ways to solve which will be very beneficial to society.
PO 7	Imbibe ethical, moral and social values to become cultured and civilized global citizens.
PO 8	Address social and environmental issues from sustainability perspective.

Programme Specific Outcomes

PSO 1	Articulate diverse aspects of forensic science like Criminology, Forensic Science, Criminal Law, Police administration, Forensic Physics, Forensic Chemistry, Forensic Biology, Economic offences, Human Rights and Criminal Justice System, and collection, preservation and evaluation of different types of evidences using scientific Methods and instrumentation.
PSO 2	Illustrate the functioning of the judicial system, police organizations, forensic Science laboratories, techniques involved in collection, preservation and evaluation of evidences.
PSO 3	Demonstrate the functioning and co- ordination/ co- operational aspects of the allied sciences such as Forensic- Serology, Medicine and Toxicology, that assist in forensic investigation protocols and step by step development of the investigative procedures.
PSO 4	Differentiate between and among methods/protocols, instrumentation and evaluative procedures required in the investigative process that is required for crime solving and also document the same as per norms.
PSO 5	Recommend and develop various aspects of investigation protocols based on the type of crimes, evidences collected, evaluative procedures conducted and aid in solving cases keeping in mind the laws and justice systems pertaining to the same.

**Structure of the programme:
Credit and Hours Distribution System for all UG courses including Lab Hours**

**FIRST YEAR
Semester-I**

Part	List of Courses	Credit	No. of Hours
Part-1	Tamil or other Languages	3	6
Part-2	English	3	6
Part-3	Core Courses & Elective Courses [in Total]	13	14
Part-4	Skill Enhancement Course COURSE-1	2	2
	Foundation Course	2	2
		23	30

Semester-II

Part	List of Courses	Credit	No. of Hours
Part-1	Tamil or other Languages	3	6
Part-2	English	3	6
Part-3	Core Courses & Elective Courses including laboratory [in Total]	13	14
Part-4	Skill Enhancement Course- 2	2	2
	Skill Enhancement Course- 3 (Discipline / Subject Specific)	2	2
		23	30

**SECOND YEAR
Semester-III**

Part	List of Courses	Credit	No. of Hours
Part-1	Tamil or other Languages	3	6
Part-2	English	3	6
Part-3	Core Courses & Elective Courses including laboratory [in Total]	13	14
Part-4	Skill Enhancement Course- 4 (Entrepreneurial Based)	1	1
	Skill Enhancement Course- 5 (Discipline / Subject Specific)	2	2
	Environmental Studies	-	1
		22	30

Semester- IV

Part	List of Courses	Credit	No. of Hours
Part-1	Tamil or other Languages	3	6
Part-2	English	3	6
Part-3	Core Courses & Elective Courses including laboratory [in Total]	13	13
Part-4	Skill Enhancement Course- 6 (Discipline / Subject Specific)	2	2
	Skill Enhancement Course - 7 (Discipline / Subject Specific)	2	2
	Environmental Studies	2	1
		25	30

**THIRD YEAR
Semester-V**

Part	List of Courses	Credit	No. of Hours
Part-3	Core Courses including Project / Elective Based	22	28
Part-4	Value Education	2	2
	Internship / Industrial Visit / Field Visit	2	
		26	30

Semester-VI

Part	List of Courses	Credit	No. of Hours
Part-3	Core Courses including Project / Elective Based & LAB	18	28
Part-4	Extension Activity	1	-
	Professional Competency Skill	2	2
		21	30

Examinations

There will be an internal assessment comprising of tests, seminars and assignments and one End-semester examination during each semester. The internal assessments will form 25 % of the marks (including 15 marks for tests, 5 marks for assignments and 5 marks for seminar presentation) and the end semester examination will form 75 % of the total marks.

In select subjects the internal assessments will form 25 % of the marks (including 15 marks for CIA, 5 marks for assignments and 5 marks for seminar presentation), Internal Evaluation of Practical/ Report comprising of 25 % of the marks and the end semester examination will form 50 % of the total marks (Wherever applicable Viva Voce shall be considered for external evaluation)

QUESTION PAPER PATTERN – I

Time: Three hours

Maximum: 75 Marks

PART – A

(10X1=10 Marks)

Answer ALL the Questions, choose the correct answer.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

PART – B

(5X5=25 Marks)

Answer ALL the Questions, choosing either (a) or (b), in about 150 words.

11. (a) (or)
(b)
12. (a) (or)
(b)
13. (a) (or)
(b)
14. (a) (or)
(b)
15. (a) (or)
(b)

PART – C

(5X8=40 Marks)

Answer ALL the Questions, choosing either (a) or (b), in about 250 words.

16. (a) (or)
(b)
17. (a) (or)
(b)
18. (a) (or)
(b)
19. (a) (or)
(b)
20. (a) (or)
(b)

QUESTION PAPER PATTERN – II

Time: Three hours

Maximum: 50 Marks

PART – A (10X1=10 Marks)

Answer ALL the Questions, choose the correct answer.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

PART – B (5X3=15 Marks)

Answer ALL the Questions, choosing either (a) or (b), in about 100 words.

11. (a)
(or)
(b)
12. (a)
(or)
(b)
13. (a)
(or)
(b)
14. (a)
(or)
(b)
15. (a)
(or)
(b)

PART – C (5X5=25 Marks)

Answer ALL the Questions, choosing either (a) or (b), in about 200 words.

16. (a)
(or)
(b)
17. (a)
(or)
(b)
18. (a)
(or)
(b)
19. (a)
(or)
(b)
20. (a)
(or)
(b)

Credit Distribution for UG Programmes

Sem I	Credit	H	Sem II	Credit	H	Sem III	Credit	H	Sem IV	Credit	H	Sem V	Credit	H	Sem VI	Credit	H
1.1 Part-1 Tamil or other Languages	3	6	2.1 Part-1 Tamil or other Languages	3	6	3.1 Part-1 Tamil or other Languages	3	6	4.1 Part-1 Tamil or other Languages	3	6	5.1 Core Course IX	4	5	6.1 Core Course – XIII	4	6
1.2 Part-2 English	3	6	2.2 Part-2 English	3	6	3.2 Part-2 English	3	6	4.2 Part-2 English	3	6	5.2 Core Course X	4	5	6.2 Core Course XIV	4	6
1.3 Core Course I	5	5	2.3 Core Course III	5	5	3.3 Core Course V	5	5	4.3 Core Course VII Core Industry Module	5	5	5.3. Core Course XI	4	5	6.3 Core Course XV	4	6
1.4 Core Course II	5	5	2.4 Core Course IV	5	5	3.4 Core Course VI	5	5	4.4 Core Course VIII	5	5	5.4. Core Course –/ Project with viva-voce XII	4	5	6.4 Elective VII Generic/ Discipline Specific	3	5
1.5 Elective I Generic/ Discipline Specific	3	4	2.5 Elective II Generic/ Discipline Specific	3	4	3.5 Elective III Generic/ Discipline Specific	3	4	4.5 Elective IV Generic/ Discipline Specific	3	3	5.5 Elective V Generic/ Discipline Specific	3	4	6.5 Elective VIII Generic/ Discipline Specific	3	5
1.6 Skill Enhancement Course-1	2	2	2.6 Skill Enhancement Course-2	2	2	3.6 Skill Enhancement Course 4, (Entrepreneurial Skill)	1	1	4.6 Skill Enhancement Course 6	2	2	5.6 Elective VI Generic/ Discipline Specific	3	4	6.6 Extension Activity	1	-
1.7 Skill Enhancement - (Foundation Course)	2	2	2.7 Skill Enhancement Course 3	2	2	3.7 Skill Enhancement Course 5	2	2	4.7 Skill Enhancement Course 7	2	2	5.7 Value Education	2	2	6.7 Professional Competency Skill	2	2
						3.8 Environmental Studies	-	1	4.8 Environmental Studies	2	1	5.8 Summer Internship /Industrial Training	2				
	23	30		23	30		22	30		25	30		26	30		21	30
Total – 140 Credits																	

Evaluation

METHODS OF EVALUATION		
Internal Assessment	Continuous Internal Assessment Test	25 Marks
	Assignments / Snap Test / Quiz	
	Seminars	
	Attendance and Class Participation	
External Assessment	End Semester Examination	75 Marks
IN SELECT COURSE WHERE PRACTICAL'S IS PART OF COURSE		
Internal Assessment	Continuous Internal Assessment Test	25 Marks
	Assignments / Snap Test / Quiz	
	Seminars	
Internal Evaluation- Practical's	Practical's and Record/ Report	25 Marks
Internal Assessment	Total Internal Evaluation	50 Marks
External Assessment	End Semester Examination Wherever Viva Voce is applicable it shall be considered for external evaluation	50 Marks
Total		100 Marks
METHODS OF ASSESSMENT		
Remembering (K1)	The lowest level of questions requires students to recall information from the course content Knowledge questions usually require students to identify information in the textbook.	
Understanding (K2)	Understanding of facts and ideas by comprehending, organizing, comparing, translating, interpolating and interpreting in their own words. The questions go beyond simple recall and require students to combine data together	
Application (K3)	Students have to solve problems by using/applying a concept learned in the classroom. Students must use their knowledge to determine an exact response.	
Analyze (K4)	Analyzing the question is one that asks the students to break down something into its component parts. Analyzing requires students to identify reasons, causes or motives and reach a conclusion or generalizations.	
Evaluate (K5)	Evaluation requires an individual to make judgment on something. Questions to be asked to judge the value of an idea, a character, a work of art, or a solution to a problem. Students are engaged in decision-making and problem-solving. Evaluation questions do not have single right answers.	
Create (K6)	The questions of this category challenge students to get engaged in creative and original thinking. Developing original ideas and problem-solving skills	

Note on Teaching Methodology

- A. The teaching methodology adopted for the course will utilize participatory learning methods, like workshops, discussions, assignments, short education tours, seminars, peer teaching, and group work, apart from regular lectures.
- B. The syllabus indicates the type of teaching method, to be adopted for a particular topic, in the footnote of the same page.
- C. The method suggested is only indicative; the concerned course teacher can use other methods or a combination of many methods, in order to improve the quality of knowledge transfer.
- D. Course teachers adopting participatory teaching methods may please take extra care on the following issues
 - a) Set a brief, clear task rather than lecturing
 - b) Use hands-on, multi-sensory materials rather than rely only on verbal communication
 - c) Create an informal, relaxed atmosphere
 - d) Choose growth-producing activities Evoke feelings, beliefs, needs, doubts, perceptions, aspirations
 - e) Encourage creativity, analysis, planning
 - f) Decentralize decision-making
- E. The following portions give details of some contemporary techniques that may be followed by course teachers, who teach various subjects in criminology

1. BRAINSTORMING

Brainstorming is a familiar technique in which the teacher asks a specific question or describes a particular scenario, and students offer many different ideas. These ideas are then usually written on a flipchart or chalkboard and considered for further discussion.

2. CASE ANALYSIS

A case study is a written scenario that usually involves an important community situation. Since it is written beforehand, it can be specifically created to address relevant local issues.

3. DEMONSTRATIONS / PRACTICAL EXPOSURE

A demonstration is a structured performance of an activity to show, rather than simply tell, a group how the activity is done. This method brings to life some information that you may have already presented in a lecture.

4. DRAMATIZATION

A dramatization is a carefully scripted play where the characters act out a scene related to a learning situation. It is designed to bring out the important issues to be discussed or messages to be learned.

5. FISHBOWL

In a fishbowl discussion, most of the students sit in a large circle, while a smaller group of students sits inside the circle. The fishbowl can be used in two distinct ways:

- As a structured brainstorming session: Choose a specific topic based on the group's needs or interests. A handful of seats are placed inside a larger circle. Students who have something to say about the topic at hand sit in the center. Anyone sitting inside the fishbowl can make a comment, offer information, respond to someone else in the center, or ask a question. When someone from the outside circle has a point to make, he or she taps the shoulder of someone in the center and takes that person's seat. This continues, with people from the outside tapping and replacing people on the inside, as a lively brainstorm takes place. You will need to process the many ideas after the fishbowl exercise.
- For structured observation of a group process: Students in the fishbowl are given a specific task to do, while students outside the fishbowl act as observers of the group process. The inner group works on its task together, and the outer group is asked to note specific behaviours. To process the activity, ask the inner group to reflect on the group process, and ask the outer group to describe what they observed.

6. GAMES

Games are appropriate participatory tools when they are used to encourage students to take charge of their own learning, and to test and reinforce new knowledge or skills. Adapt a popular game to convey or test knowledge of a particular topic, or create a new game to test or reinforce learning. Divide students into groups, if necessary, to play the game. Use games after information has already been shared using another method (e.g., lecturette, demonstration, jigsaw learning, etc.) or to assess students' knowledge at the start of a learning activity.

7. JIGSAW LEARNING

In a jigsaw activity, evenly divided groups are given a topic to learn (a piece of the puzzle to master). Once these small groups have mastered the content, the groups are reorganized so that each new group contains one member from each original group (now each group contains all essential pieces of the puzzle to put together). Each new group now contains an "expert" on the content that they have mastered in the original groups, and one at a time, each expert teaches the new content to the newly formed groups. The teacher then processes the activity and emphasizes key learning.

8. LECTURETTE

A lecturette is a short, oral presentation of facts or theory. No more than 15-20 minutes in length, the goal of a lecturette is to impart information in a direct, highly organized fashion. The course teacher presents knowledge on a topic, sometimes using flipcharts, computer software presentations or other media to guide the discussion.

9. PANEL DISCUSSIONS

This method usually involves the presentation of an issue by several teachers at a table in front of a group. Usually, each teacher speaks briefly on the topic and then a moderator solicits questions from the audience. The moderator introduces the presenters/ teachers, keeps the discussion on the topic and within time limits and summarizes the discussion at the end. Each teacher typically speaks for a set period of time (for example, five minutes). After all teachers have spoken, the moderator invites questions from students. At the end of the session, the moderator may summarize the discussion and thank the presenters for their participation.

10. ROLE PLAY

Role-plays are short interactions of students playing specific, predetermined roles to explore issues or practice skills. Roles are usually written out, and the teacher may help students playing the roles understand "who" they are to be. Role-plays are generally used after a period of instruction or discussion. For example, if students are learning communication skills, groups can role-play being assertive in typical situations (e.g., students in peer pressure situations, or people needing to access services in a clinic or office). Stop the role-play periodically and discuss what behaviors worked and what was difficult and allow the group to brainstorm different choices of behavior/words. The role-play may be done again, with the same person practicing or someone else trying.

11. SKIT

A skit is an impromptu performance by students to demonstrate something they know. Skits can be created by students to show concerns they have about such things as peer pressure, victim issues in their community or lack of resources. Give students a topic, the maximum length of the skit and the amount of time they have to prepare (depending on the complexity, 30 minutes or an afternoon, for example).

12. SMALL GROUP DISCUSSION

A small group discussion is a structured session in which three to six students exchange ideas and opinions about a particular topic or accomplish a task together. After the groups have had an opportunity to work together, they report the highlights of their work back to the large group, and the teacher helps the group process the activity. Begin the learning activity by briefly presenting a topic to the large group. Then, divide the group into smaller groups and set a clear task for the small groups to accomplish. Write directions, goals and time allotted for the task on a chalkboard, flipchart or handout. As groups are working, walk around and listen in briefly to each group. Keep groups focused by announcing the time remaining periodically. After the small group work, students typically reassemble in the large group and a representative from each small group shares their findings to the large group for a whole group discussion. Help the group process the activity to be sure the intended message was conveyed.

Reading list for Participatory Teaching Methodology

Cross, K. P. (1991). *Effective College Teaching*. ASEE Prism, (1)2, 27-29.

Eitington, Julius E. (2002) *The Winning Trainer: Winning Ways to Involve People in Learning*. Boston: Butterworth Heinemann.

- Hamer, L.O. (2000). The Additive Effects of Semi-structured Classroom Activities on Student Learning: An Application of Classroom-Based Experiential Learning Techniques. *Journal of Marketing Education*, (22)1, 25-34.
- Holzer, S. M. & Andruet, R.H. (2000). Active Learning in the Classroom. Proceedings, ASEE Southeastern Section Annual Meeting, April 2-4, 2000.
- Kolb, David A. (1984). *Experiential Learning*. New York: Prentice-Hall, Inc.
- Narayan, D. and Srinivasan, L. (1994) *Participatory Development Toolkit: Materials to Facilitate Community Empowerment*. Washington: World Bank
- Newstrom, John W. (1993) *Even More Games Trainers Play*. New York: McGraw-Hill, Inc.
- Pike, Bob and Christopher Busse. (1995) *101 Games for Trainers: A Collection of Best Activities from Creative Training Newsletter*. Minneapolis, MN: Lakewood Publications.
- Pretty, J N, Guijt I, Thomson, J and Scoones, I (1995) *A Trainer's Guide for Participatory Learning and Action*.
- Silberman, Mel. (1995). *101 Ways to Make Training Active*. San Francisco: Jossey-Bass Pfeiffer.
- Srinivasan, Lyra. (1990) *Tools for Community Participation: A Manual for Training Trainers in Participatory Techniques*. Washington, DC: PROWESS/UNDP.
- Technology of Participation: Group Facilitation Methods: Effective Methods for Participation*. (2000) Phoenix, AZ: Institute for Cultural Affairs.

B.Sc. Criminology and Forensic Science

Abstract of the Syllabus 2023-2024

SEMESTER I

				Maximum Marks				Passing Marks	
Subject Part	Title of the Subjects	Hrs/Week	Credits	Int	Practicals	Ext	Total	Min	Max
1.1 Part 1 Language	Tamil/Other Languages	6	3	25	-	75	100	40	100
1.2 Part 2 English	English	6	3	25	-	75	100	40	100
1.3 Core Course I	Fundamentals of Criminology and Criminal Justice	5	5	25	-	75	100	40	100
1.4 Core Course II	Introduction to Forensic Science	5	5	25	-	75	100	40	100
1.5 Elective I	Police Administration and Investigation	4	3	25	-	75	100	40	100
1.6 SEC- 1	Forms of Crime	2	2	25	-	75	100	40	100
1.7 Skill Enhancement (Foundation Course)- Practical's	Visit to Institutions and Scene of Crime	2	2	25	-	75	100	40	100
Sub Total Credits		30	23						

SEMESTER II

				Maximum Marks				Passing Marks	
Subject Part	Title of the Subjects	Hrs/Week	Credits	Int	Practicals	Ext	Total	Min	Max
2.1 Part 1 Language	Tamil/Other Languages	6	3	25	-	75	100	40	100
2.2 Part 2 English	English	6	3	25	-	75	100	40	100
2.3 Core Course III	Technological Methods in Forensic Science	5	5	50	-	50	100	40	100
2.4 Core Course IV	Questioned Documents	5	5	25	-	75	100	40	100
2.5 Elective II	Criminal Laws	4	3	25	-	75	100	40	100
2.6 SEC- 2	Forms of Cybercrimes	2	2	25	-	75	100	40	100
2.7 SEC- 3 Practical's	Forensic Science- Lab	2	2	25	-	75	100	40	100
Sub Total Credits		30	23						

I SEMESTER

CORE COURSE I
FUNDAMENTALS OF CRIMINOLOGY AND CRIMINAL JUSTICE

Course Code	Sub Code	TITLE OF THE COURSE	L	T	P	C
Core I		Fundamentals of Criminology and Criminal Justice	4	1	0	5

L: Lecture T: Tutorial P: Practical C: Credits

Course Objectives:

The main objectives of this course are

- This course will expose the introductory concepts of crime and criminology along and emphasizes on analyzing multidisciplinary nature of criminology with some most prominent social science disciplines. Through this course students will be introduced to various schools or criminological thoughts and their importance. This paper enables students to understand the functioning of criminal justice system in India. The course also emphasizes on explaining typologies of crime and criminals along with latest trends of crime cases in India recorded under respective crime statistics institutions.*

Course Outcomes (COs):

At the end of this course of study, the student will be able to

CO No.	Course Outcomes	Cognitive Levels
CO1	Introduce the concept of crime, its nature and scope	K1
CO2	Introduction to criminology its origin and the interdisciplinary nature of Criminology	K2
CO3	Critically identify the contribution each school of thought for the growth and development of Criminology.	K2
CO4	Understanding different typologies of crime including crimes against human body, property and types of offenders.	K3
CO5	Exploring crime statics of new crimes in the modern era and studying statistical institutions of criminological importance in India.	K4 K5
K1: Remember K2: Understand K3: Apply K4:AnalyzeK5: Evaluate K6: Create		

Course Outline:

Unit-I: Crime Basic Concepts

Crime-Definitions; Forms of crime, Elements of Crime, Mens Rea, Actus Reus, Mala Inse, Mala Prohibita; Tort, Sin, Deviance and Abnormal Behaviour.

Unit-II: Crime and Criminal Typology

Introduction to crimes against persons and crimes against property; Adult and Juvenile – Habitual offenders, Professional offenders, and violent offenders

Unit-III: Criminology and Allied Fields

Criminology, historical perspectives; nature, origin and scope, Criminology as a social science, Relations with other Social Sciences, Medicine & Law subjects;

Unit-IV: Schools of Criminology

Pre-classical, Classical, Neo-Classical, Positive, Cartographic, Biological and Constitutional School.

Unit-V: Criminal Justice System

Structure of Criminal Justice System in India; Roles of legislature, police, judiciary and prison system in Criminal Justice; Cooperation and coordination among the various sub systems of criminal justice system. Crime Trends in India- Crimes in India: Statistics, Crime Clock, Crime rate, National Crime records Bureau, State Crime records Bureau, and District crime records bureau; Crime patterns and Trends in India (latest trends should be introduced).

RECOMMENDED READINGS

- Ahmed Siddique, (1993), *Criminology, Problems and Perspectives*, III Edn. Eastern Book House, Lucknow.
- Brendan Maguire & Polly F. Radosh, (1999), *Introduction to Criminology*, Wadsworth Publishing Company, Boston, U.S.A.
- Chockalingam, K. (1997), '*Kuttraviyal*' (Criminology) in Tamil, Parvathi Publications, Chennai.
- Edwin H. Sutherland and Donald R. Cressey (1974), *Principles of Criminology*, Lippincott, Philadelphia.
- George Vold and Thomas J. Bernard, (1986), *Theoretical Criminology*, Oxford University Press, New York
- Harries, K., (1999) *Mapping Crime – principle and practice*, Crime Mapping Research Center, National Institute of Justice, U.S Department of Justice, Washington, DC
- Harry Elmer Barnes and Negley K. Teeters, (1966), *New Horizons in Criminology*, Prentice Hall, New Delhi.
- Paranjepe, N.V., (2002). *Criminology and Penology*, Central Law Publications, Allahabad.

Mapping of Course Outcomes to Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	High	Low	High	Low	Medium	Low	High	Medium
CO2	Medium	High	High	Medium	Low	Low	High	Medium
CO3	High	Medium	High	Low	Medium	Medium	Medium	Medium
CO4	Medium	High	Medium	Low	Low	Low	High	Medium
CO5	High	Low	High	Low	Medium	Low	High	Medium
Correlation Levels: Low Medium High								

Mapping of Course Outcomes to Programme Specific Outcomes (PSOs)

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	High	Low	High	Low	Medium
CO2	High	Low	High	Low	Medium
CO3	Medium	High	Medium	Low	Low
CO4	Medium	Low	Low	High	Medium
CO5	Low	Medium	Low	High	Medium
Correlation Levels: Low Medium High					

CORE COURSE II
INTRODUCTION TO FORENSIC SCIENCE

Course Code	Sub Code	TITLE OF THE COURSE	L	T	P	C
Core II		Introduction to Forensic Science	4	1	0	5

L: Lecture T: Tutorial P: Practical C: Credits

Course Objectives:

The main objectives of this course are

- This course would introduce the students to History of Forensic Science and its development in India. The students would be appraised about the Principles of Forensic Science. They would also acquire knowledge regarding domains of forensic science across the globe along with organizational setup of forensic institutions the services provided by the Forensic Laboratories.

Course Outcomes (COs):

At the end of this course of study, the student will be able to

CO No.	Course Outcomes	Cognitive Levels
CO1	Understand the significance and Historical development of Forensic science	K2
CO2	Exploring the Organizational setup of Laboratories and some relevant allied intuitions working forensic science.	K1 K2
CO3	Understand various Trace evidences and knowing the scientific procedures related to trace evidences	K2
CO4	Analysing questioned documents and scientific methods of examination	K4
CO5	Evaluation of crime scene management and various processes involved in detection of crime.	K4 K5
K1: Remember K2: Understand K3: Apply K4:AnalyzeK5: Evaluate K6: Create		

Course Outline:**Unit-I: Forensic Science**

Definitions and concepts in forensic science. Scope of forensic science. History of Development of Forensic Science in India Functions of various divisions of forensic science laboratory. Pioneers in Forensic Science. Basic principles of forensic science; Locard's Principle, Frye Principles and Daubert Standard.

Unit-II: Forensic Science Establishments

Hierarchical set up of Forensic Science Laboratories in India (Central and State bodies)- DFSS- CFSL, SFSL, RFSL, DFSL, MFSL; Allied Institutions in India - NICFS, CDTS, PTA, NCRB, BPRD, Forensic science in international perspectives, including set up of INTERPOL and FBI.

Unit-III: Trace Evidence

Meaning, Locard's principle of exchange, Importance and Collection of various trace evidence - Hair, Fiber, Fabric, Glass, Paint, Soil, Powders, Gunshot Residues, Detective Dyes. IEA 1872 - Witnesses, and Admissibility of the Evidence in the Court.

Unit-IV: Physical Evidence

Classification of physical evidence—class and individual characteristics. Identification and individualization of physical evidence. Locard's Principle of exchange. Varieties of trace evidence—Pollens, fibers, metal fragments, Paint, Soil, glass particles, dust and airborne particles etc., their significance. Footwear impressions: Tyre marks, skid marks—tool marks and their significance.

Unit -V: Crime Scene Management

Crime Scene - Indoor and Outdoor, Primary and Secondary, Conveyance Crime Scene; Evidences. General crime scene procedures- Note of Observation, Searching, Photography, Videography, Sketching; Physical evidences: their types, significance, Chain of custody. Crime Scene Reconstruction (CSR).

RECOMMENDED READINGS:

- R. Saferstein, *Criminalistics*, 8th Edition, Prentice Hall, New Jersey (2004).
 W.J. Tilstone, M.L. Hastrup and C. Hald, *Fisher's Techniques of Crime Scene Investigation*, CRC Press, Boca Raton (2013).
 B.B. Nanda and R.K. Tiwari, *Forensic Science in India: A Vision for the Twenty First Century*, Select Publishers, New Delhi (2001).
 M.K. Bhasin and S. Nath, *Role of Forensic Science in the New Millennium*, University of Delhi, Delhi (2002).
 S.H. James and J.J. Nordby, *Forensic Science: An Introduction to Scientific and Investigative Techniques*, 2nd Edition, CRC Press, Boca Raton (2005).
 W.G. Eckert and R.K. Wright in *Introduction to Forensic Sciences*, 2nd Edition, W.G. Eckert (ED.), CRC Press, Boca Raton (1997).

Mapping of Course Outcomes to Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	Medium	High	High	Low	Medium	High	High	Low
CO2	Low	High	Low	Medium	Low	High	High	Medium
CO3	Medium	Medium	Medium	Low	Low	Medium	High	Low
CO4	Low	Low	Medium	Low	Low	High	Medium	Low
CO5	Medium	Low	High	High	Low	High	High	High
Correlation Levels: Low Medium High								

Mapping of Course Outcomes to Programme Specific Outcomes (PSOs)

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	High	High	Medium	Medium	High
CO2	Low	Medium	Low	Medium	Low
CO3	High	High	High	Low	Medium
CO4	Low	Medium	Low	Low	High
CO5	Medium	Low	Medium	High	High
Correlation Levels: Low Medium High					

**ELECTIVE I GENERIC/ DISCIPLINE SPECIFIC
POLICE ADMINISTRATION AND INVESTIGATION**

Course Code	Sub Code	TITLE OF THE COURSE	L	T	P	C
Elective I		Police Administration and Investigation	3	1	0	3

L: Lecture T: Tutorial P: Practical C: Credits

Course Objectives:

The main objectives of this course are

- *Through this paper would like to introduce the concept of policing and its origin in India. This enables the student to know the organization & the administration of the police sector across India. This course will also make the students aware about various police institutions established in India and their role. The duties, power of the police will all be the part of the knowledge of this paper.*

Course Outcomes (COs):

At the end of this course of study, the student will be able to

CO No.	Course Outcomes	Cognitive Levels
CO1	Understand the history and development of policing in India.	K1 K2
CO2	Describing structures of Indian police in India	K1 K2 K3
CO3	Exploring the processes of recruitment and training of police officers of various ranks in India	K2
CO4	Become familiar with police organization working at state level and their importance	K3
CO5	Understand the powers, duties and investigation police officers.	K4 K5
K1: Remember K2: Understand K3: Apply K4:AnalyzeK5: Evaluate K6: Create		

Course Outline:

Unit-I: Basics of Police Administration

History of Indian Police – Policing in Ancient, Medieval and Modern India- Police Act of 1861- Police Duties and Powers, Arrest, search, locking up and remand of suspected and accused persons.

Unit-II: Structure of Indian Police

Structure of State Police – District Police– City Police. Central Police Organizations - CBI, CISF, CRPF, RPF etc.Police research and Crime Statistics Organizations– BPR&D, NCRB.Village police, Railway and Armed Police.

Unit-III: Processes Recruitment and Training

Recruitment and Training- Constables, Sub-inspector, Deputy Superintendents of Police; IPS; Law and order.Police Station Management and its records. Maintenance and detection of crimes.

Unit-IV: State Special Police Organizations

Tamil Nadu Special Investigation team, Special Branch, Q Branch, Crime Branch, Anti-Dacoity cell, Video Piracy Cell, Narcotic Intelligence Bureau, Idol wing and Economic Offences wing.

Unit-V: Methods of Investigation

Methods of Investigation– Information, Interrogation and instrumentation. Modus Operandi, Police Dogs, Polygraph, Portrait building. Search and Seizure.

RECOMMENDED READINGS:

- Bayley, D.H. (1969), *The Police and Political Development in India*, Princeton University Press, Princeton.
- Diaz, S.M., (1976), *New Dimensions to the Police Role and Functions in India*, Published by the National Police Academy, Hyderabad.
- Edelston, C.D. & Wicks, R.I. (1977), *An Introduction to Criminal Justice*, McGraw Hill.
- Krishna Mohan Mathur, (1994), *Indian Police, Role and Challenges*, Gyan Publishing House, New Delhi.
- Hermann Mannheim, (1973), *Comparative Criminology*, Vol. 1 & 2, Routledge & Kegan Paul.
- Levoneet. al. (1980), *Criminal Justice: A Public Police Approach*, Jovanovich Publishers, Harcourt Brace.
- Morley, W.H., (1958), *Administration of Justice in India*, New Delhi, Metropolitan.
- Nehad Ashraf, (1992), *Police and Policing in India*, Common Wealth Publishers, New Delhi.
- Parmar M.S., (1992), *Problems of Police Administration*, Reliance Publishing House, New Delhi.
- Sethi, R.B., (1983), *The Police Acts*, Law Book Co., Allahabad.
- Vanamamalai, N.T., (1980), *Law and Justice in the U.S.*, Sterling Publishers Pvt., Ltd., New Delhi.
- VenugopalRao S., (1991), *Criminal Justice – Problems and Perspectives in India*, Konark Publishers Pvt. Ltd., New Delhi.
- 1979 – 82, *Report of the National Police Commission* in 8 parts, Central Govt. Publications.
- 1955, 1975, 1985, *U.N. Standard Minimum Rules* on various matters connected with Criminal Justice.

Mapping of Course Outcomes to Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	High	Low	Medium	Low	High	Low	Low	Medium
CO2	High	Medium	Low	Low	High	High	Medium	Low
CO3	High	Low	Medium	Medium	Medium	Medium	Low	Medium
CO4	Medium	Low	Low	Low	High	High	Low	Low
CO5	High	High	Medium	Low	High	Low	Low	Medium
Correlation Levels: Low Medium High								

Mapping of Course Outcomes to Programme Specific Outcomes (PSOs)

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	High	Medium	High	Low	Medium
CO2	Medium	Low	High	Low	Medium
CO3	High	High	Low	Medium	Low
CO4	Medium	Low	High	High	Low
CO5	Low	Medium	Low	High	Medium
Correlation Levels: Low Medium High					

SKILL ENHANCEMENT COURSE 1
FORMS OF CRIME

Course Code	Sub Code	TITLE OF THE COURSE	L	T	P	C
SEC 1		Forms of Crime	2	0	0	2

L: Lecture T: Tutorial P: Practical C: Credits

Course Objectives:

The main objectives of this course are

- To introduce the students to the contemporary forms of crimes that society faces. To introduce the students to the traditional forms of crimes that society faces. To understand the collar crimes. To describe the organised crimes across the world. To explain the forms of terrorism.

Course Outcomes (COs):

At the end of this course of study, the student will be able to

CO No.	Course Outcome	Cognitive Levels
CO1	Appreciate the difference between conventional and contemporary forms of crime	K1 K2
CO2	Understand the impact of organised crimes in a society	K2
CO3	Appreciate the impact of victimless crime	K3
CO4	Develop some workable counter measure to contemporary forms of crime	K2 K4 K5
CO5	Develop comprehensive preventive measures to combat crimes.	K1 K2

K1: Remember **K2:** Understand **K3:** Apply **K4:**Analyze**K5:** Evaluate **K6:** Create

Course Outline:**Unit-I: Conventional Crimes**

Crimes against property – Theft – Robbery – Dacoity. Crimes against persons: Murder, Rape, Assault, Kidnapping and Abduction.

Unit II: White Collar Crime

Collar Crimes; White Collar Crime¹– Causes– Societal Reaction– Corporate Crimes– Corruption, Tax Evasion, Counterfeiting, Frauds by banking and non-banking institutions, Insurance frauds and other economic offences. Cyber Crimes: Phishing, Crimes against women in cyberspace, cyber bullying, cyber stalking, Identity Frauds etc.

Unit III: Organized Crimes

Definition and characteristics of Organized Crimes², Organization and Structure of Criminal gangs, Crime syndicate, Racketeering. Automobile theft, Gambling, Political Graft, Drug trafficking – Golden Crescent and Triangle. Environmental Crimes, Narco-Terrorism.

Unit IV: Terrorism

Terrorism³ – Origin – Causes and Consequences. Forms – Revolutionary, Nationalist, and Bio-Terrorism. Different types of Terrorist manifestations in India – Extremism. Militancy, Naxalite, and Insurgency.

Unit V: Victimless Crimes

¹ Fish Bowl

² Seminar

³ Panel Discussion

Prostitution, Homosexuality, Alcoholism⁴ and Drug Abuse⁵. NDPS Act. Treatment of Addicts – Various Anonymous Programmes and De-addiction Centres.

RECOMMENDED READINGS:

- Ahmed Siddique, (1993), *Criminology, Problems and Perspectives*, III Edn., Eastern Book House, Lucknow.
- Allen, Friday, Roebuck and Sagarin, (1981), *Crime and Punishment: An introduction to Criminology*. The Free press. New York.
- Brendan Maguire & Polly F. Radosh, (1999), *Introduction to Criminology*, Wadsworth Publishing Company, Boston, U.S.A.
- Chockalingam, K. (1997), '*Kuttraviyal*' (Criminology) in Tamil, Parvathi Publications, Chennai.
- Edwin H. Sutherland and Donald R. Cressey (1974), *Principles of Criminology*, Lippincott, Philadelphia.
- Harry Elmer Barnes and Negley K. Teeters, (1966), *New Horizons in Criminology*, Prentice Hall, New Delhi.
- John E. Conklin, J.E., (1981), *Criminology*, Macmillan, London.
- Mahesh Chandra, (1979), *Socio-Economic Crimes*. N.M. Tripathi, Bombay
- Mishra H.B., (1999) *Terrorism, Threat to peace and harmony*, Authors press Pub of Scholarly books, Delhi, 1999.
- Omprakash, S., (Ed) (1997) *Terrorism in India*, Ess Ess Publications.
- Paranjpe, N.V., (2002). *Criminology and Penology*, Central Law Publications, Allahabad.
- Debarati Halder and K. Jaishankar (2011) *Cybercrime and the Victimization of Women: Laws, Rights, and Regulations*. Hershey, PA, USA: IGI Global.
- K. Jaishankar (Ed.) (2011). *Cyber Criminology: Exploring Internet Crimes and Criminal behavior*. Boca Raton, FL, USA: CRC Press, Taylor and Francis Group.

Mapping of Course Outcomes to Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	High	High	Low	Medium	Low	High	Low	Medium
CO2	High	High	Medium	Low	Low	High	Medium	Low
CO3	Medium	High	Low	Medium	Medium	High	Low	Medium
CO4	High	Medium	Low	Low	Low	Medium	Low	Low
CO5	High	High	High	Medium	Low	High	High	Medium
Correlation Levels: Low Medium High								

Mapping of Course Outcomes to Programme Specific Outcomes (PSOs)

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	Medium	High	High	Medium	High
CO2	Low	Medium	Low	Medium	Low
CO3	High	High	Low	Low	Medium
CO4	Low	Medium	High	Low	High
CO5	Medium	Low	Low	Medium	High
Correlation Levels: Low Medium High					

⁴ Role play

⁵ Practical Exposure to NGOs working in the area

**SKILL ENHANCEMENT FOUNDATION COURSE
VISIT TO INSTITUTIONS**

Course Code	Sub Code	TITLE OF THE COURSE	L	T	P	C
SEFC		Visit to Institutions and Scene of Crime	0	0	2	2

L: Lecture T: Tutorial P: Practical C: Credits

Course Objectives:

The main objectives of this course are

- To understand the role of Criminal Justice Agencies and its allied fields. To understand the functions of Criminal Justice Agencies and its allied fields. To understand the concept of employability quotient and its related concepts in the field. To understand managerial and other skills required to work in criminal justice agencies and its allied fields. To develop the individual report writing skills.

Course Outcomes (COs):

At the end of this course of study, the student will be able to

CO No.	Course Outcomes	Cognitive Levels
CO1	Appreciate role and duties of Criminal Justice Agencies and its allied fields.	K1
CO2	Acknowledge the functions of Criminal Justice Agencies and its allied fields	K3
CO3	Understand the core work carried out the criminal justice agencies	K4 K5
CO4	Familiarise the records of criminal justice agencies and its allied fields.	K2 K4 K5
CO5	Students will be able to record the observations as individual report.	K1 K2
K1: Remember K2: Understand K3: Apply K4:AnalyzeK5: Evaluate K6: Create		

Course Outline:

The students, under the guidance of a teacher may be taken on visit to **any 5** of the following institutions **based on the permissions from the authorities:**

- Forensic Science Laboratory- CFSL, SFSL, DFSL, MFSL
- Private Forensic Science Laboratory
- Scene of Crime
- Forensic Medicine Department
- Police Station
- Magistrates Court
- Fire Station
- District Crime Records Bureau
- Prisons
- Vigilance Home
- Juvenile Justice Board
- Observation Home or Special Home
- Institutions for the treatment of drug addicts
- Simulation- Scene of Crime and other related institutions and agencies.

The students will undertake the visits under the guidance of a faculty and will prepare a detailed report for evaluation for the final examination. Along with this each student shall prepare minimum of three case studies (if possible) and present it before the examiners.

Details of the evaluation procedure

- Each candidate has to submit a field visit report (Visits including Criminal Justice Agencies, Forensic Labs, NGO's and Scene of Crime) and should appear for a viva voce before the external examiner, teachers and class mates.
- The students, after their visits will submit a record of their field visits which will be evaluated at two levels.
- At the **first level**, for continuous assessment, the teacher will evaluate the students for 25 marks on the following criteria
 - o Regularity in attending the visits (10 marks)
 - o Regularity in submission of reports (5 marks)
 - o Quality of the reports (10 marks).
- At the **second level**, during the end semester examination, the evaluation will be done by a panel of internal and external examiners for 75 marks.
 - o A viva voce, where other semester students will be the audience
 - o The students will be evaluated on the following criteria
 - Content of presentation (25 marks)
 - Presentation skills (25 marks)
 - Ability to defend the questions (25 marks).

Mapping of Course Outcomes to Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	High	High	Low	High	High	High	Low	Low
CO2	High	Low	Medium	High	High	Low	Medium	High
CO3	Medium	Medium	Low	High	High	Medium	Low	High
CO4	Low	Medium	Low	Medium	Medium	Medium	Low	Medium
CO5	Low	High	High	Low	Low	High	High	Low
Correlation Levels: Low Medium High								

Mapping of Course Outcomes to Programme Specific Outcomes (PSOs)

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	High	High	Medium	Medium	High
CO2	Medium	Low	Low	Medium	Low
CO3	High	High	High	Low	Medium
CO4	Medium	Low	Low	Low	High
CO5	Low	Medium	Medium	High	High
Correlation Levels: Low Medium High					

SEMESTER II**CORE COURSE III****TECHNOLOGICAL METHODS IN FORENSIC SCIENCE**

Course Code	Sub Code	TITLE OF THE COURSE	L	T	P	C
Core III		Technological Methods in Forensic Science	3	0	2	5

L: Lecture T: Tutorial P: Practical C: Credits

Course Objectives:

The main objectives of this course are

- The main objective of the course is to introduce the student's scientific Knowledge of microscopy, chromatography, spectroscopy, and electrophoresis & Forensic Photography as instrumental methods used in forensic investigation.

Course Outcomes (COs):

At the end of this course of study, the student will be able to

CO No.	Course Outcomes	Cognitive Levels
CO1	Understand the application of microscopic Instruments in Forensic Investigation	K1 K2
CO2	Apply Chromatographic techniques in Analysis of Evidences in Investigation	K3
CO3	Analyze the Forensic Application of spectroscopic instruments	K4 K5
CO4	Evaluate the efficiency of Electrophoresis techniques in Scientific Examination of Evidences	K5
CO5	Practice Forensic Photography and use it in Forensic in crime investigation	K4 K5

K1: Remember K2: Understand K3: Apply K4: Analyze K5: Evaluate K6: Create

Course Outline:**Unit-I: Microscopy**

Fundamental working principles and Forensic Significance of Microscope, Compound Microscope, Polarized Light Microscopy, Comparison Microscope, Stereo-zoom Microscope. Transmission Electron Microscope, Scanning Electron Microscope

Unit-II: Chromatographic Techniques

Fundamental working principles and Forensic Significance of Thin Layer chromatography (TLC), High Performance liquid chromatography (HPLC), Gas chromatography (GC).

Unit-III: Spectroscopic Techniques

Fundamental working principles and Forensic Significance of UV Visible Spectroscopy. Atomic Absorption Spectroscopy Atomic Emission, Infrared Spectroscopy, Raman spectroscopy

Unit-IV: Electrophoresis Techniques

Fundamental working principles and Forensic Significance of Affinity electrophoresis, Capillary electrophoresis, Immuno-electrophoresis, Gel Electrophoresis.

Unit-V: Forensic Photography

Basic principles and applications of photography in forensic science. 3D photography, Infrared and ultraviolet photography. Digital photography. Videography. Crime scene and laboratory photography.

Practical's Optional: (Internal Evaluation 25 Marks, apart from CIA)

1. To determine the concentration of a coloured compound by colorimetry analysis.
2. To carry out thin layer chromatography of ink samples.
3. To carry out separation of organic compounds by paper chromatography.
4. To identify drug samples using UV-Visible spectroscopy.
5. To take photographs of crime scene exhibits at different angles.

Internal Evaluation: 25 Marks CIA+ 25 Marks Practical= 50 Marks

External Evaluation: 50 Marks

RECOMMENDED READINGS:

D.A. Skoog, D.M. West and F.J. Holler, Fundamentals of Analytical Chemistry, 6 th Edition, Saunders College Publishing, Fort Worth (1992).

W. Kemp, Organic Spectroscopy, 3rd Edition, Macmillan, Hampshire (1991).

J.W. Robinson, Undergraduate Instrumental Analysis, 5th Edition, Marcel Dekker, Inc., New York (1995).

D.R. Redsicker, The Practical Methodology of Forensic Photography, 2nd Edition, CRC Press, Boca Raton (2000).

Mapping of Course Outcomes to Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	High	Low	High	Low	Medium	Low	High	Medium
CO2	Medium	High	High	Medium	Low	Low	High	Medium
CO3	High	Medium	High	Low	Medium	Medium	Medium	Medium
CO4	Medium	High	Medium	Low	Low	Low	High	Medium
CO5	High	Low	High	Low	Medium	Low	High	Medium
Correlation Levels:	Low	Medium	High					

Mapping of Course Outcomes to Programme Specific Outcomes (PSOs)

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	High	Low	High	Low	Medium
CO2	High	Low	High	Low	Medium
CO3	Medium	High	Medium	Low	Low
CO4	Medium	Low	Low	High	Medium
CO5	Low	Medium	Low	High	Medium
Correlation Levels:	Low	Medium	High		

**CORE COURSE IV
QUESTIONED DOCUMENTS**

Course Code	Sub Code	TITLE OF THE COURSE	L	T	P	C
Core IV		Questioned Documents	4	1	0	5

Course Objectives:

The main objectives of this course are

- The main objective of the paper is to understand 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 frauds and forgeries by analysing questioned documents.*

Course Outcomes (COs):

At the end of this course of study, the student will be able to

CO No.	Course Outcomes	Cognitive Levels
CO1	Understand nature of various types of questioned documents	K1 K2
CO2	Know about important tools used in analysing the questioned documents.	K3
CO3	Familiarize with concept of documents and its comparison.	K4 K5
CO4	Understand the alteration and forgeries in document.	K2
CO5	Explore counterfeit currencies and its nuances.	K3 K4
K1: Remember K2: Understand K3: Apply K4:AnalyzeK5: Evaluate K6: Create		

Course Outline:**Unit I: Basics of Questioned Documents**

Nature and Scope of Questioned Documents- Definition of questioned documents-Types of questioned documents. Preliminary examination of documents.

UNIT II: Instrumentations in Questioned Documents

Basic tools needed for forensic documents' examination– ultraviolet, visible, infrared and fluorescence spectroscopy, photomicrography, microphotography, visible spectral comparator, electrostatic detection apparatus - Determining the age and relative age of documents.

UNIT III: Document Comparison

Comparison of Documents- Comparison of handwriting. Development of individuality in handwriting. Natural variations and fundamental divergences in handwritings. Class and individual characteristics- Merits and demerits of exemplar and non-exemplar samples during comparison of handwriting. Standards for comparison of handwriting - Comparison of paper, ink, printed documents, typed documents, Xeroxed documents.

UNIT IV: Alteration and Forgeries

Forgeries- Alterations in documents, including erasures, additions, over-writings and obliterations. Indented and invisible writings. Charred documents. Handwriting- Methods- Applications of handwriting recognition.

UNIT V: Counterfeit Currencies

Examination of counterfeit: Indian currency notes, passports, visas and stamp papers. Disguised writing and anonymous letters.

RECOMMENDED READINGS:

O. Hilton, Scientific Examination of Questioned Documents, CRC Press, Boca Raton (1982).

A.A. Moenssens, J. Starrs, C.E. Henderson and F.E. Inbau, Scientific Evidence in Civil and Criminal Cases, 4th Edition, Foundation Press, New York(1995).

R.N. Morris, Forensic Handwriting Identification: Fundamental Concepts and Principles, Academic Press, London(2000).

E. David, The Scientific Examination of Documents – Methods and Techniques, 2nd Edition, Taylor & Francis, Hants(1997).

Mapping of Course Outcomes to Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	High	High	High	High	Low	High	Medium	High
CO2	Low	Medium	High	Low	Medium	High	Medium	High
CO3	Medium	High	Medium	Medium	Low	High	Low	High
CO4	High	Medium	Low	Medium	Low	Medium	Low	Medium
CO5	High	Low	Low	High	High	Low	High	Low
Correlation Levels: Low Medium High								

Mapping of Course Outcomes to Programme Specific Outcomes (PSOs)

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	High	High	Medium	Low	High
CO2	High	Low	Low	Medium	High
CO3	Medium	High	High	Low	High
CO4	Low	Low	Low	Low	Medium
CO5	Low	Medium	Medium	High	Low
Correlation Levels: Low Medium High					

**ELECTIVE II GENERIC/ DISCIPLINE SPECIFIC
CRIMINAL LAWS**

Course Code	Sub Code	TITLE OF THE COURSE	L	T	P	C
Elective II		Criminal Laws	3	1	0	3

L: Lecture T: Tutorial P: Practical C: Credits

Course Objectives:

The main objectives of this course are

- This course intended to make students get acquainted with fundamentals of major criminal laws such as Indian penal code (IPC) Criminal procedure code (CrPc) Indian Evidence Act (IEA). Through this course students will learn about legal provisions related criminal offences committed against human body and property. This course provides knowledge about courtroom procedures along with Indian evidence act.

Course Outcomes (COs):

At the end of this course of study, the student will be able to

CO No.	Course Outcomes	Cognitive Levels
CO1	Understanding basics of nomenclatures of Indian criminal law.	K1 K2
CO2	Describing the legal provisions of Indian Penal Code related to human body and property.	K3
CO3	Narrate various procedural aspects and provisions of Criminal Procedure Code in relation to criminal justice administration.	K1 K4
CO4	Develop knowledge about court procedures and their importance.	K6
CO5	Understanding the concepts of Indian evidence act and their legal importance.	K2

K1: Remember K2: Understand K3: Apply K4: Analyze K5: Evaluate K6: Create

Course Outline:

Unit-I: Introduction

Definitions: Vices, Sin, Tort and Crime– History of criminal law– Constitution, IPC and IEA- Nature and Scope. General Exceptions under IPC Sec 76-106. Crimes against Women and Children.

Unit-II: Legal provisions in Indian Penal Code

Crimes against property– Theft– Robbery– Dacoity. Crimes against persons: Culpable Homicide, Murder, Rape, Hurt, Crimes against public tranquillity: Riot, Unlawful assembly.

Unit-III: Code of Criminal Procedure (Cr.PC)

Organizational setup of courts in India. Complaint– inquiry– investigation– police report– public prosecutor– defence counsel- Arrest. Bail, Search, Seizure. Powers of the Police relating to Investigation. FIR and Charge Sheet.

Unit-IV: Court Procedures

Summons– Warrant– Information regarding cognizable and non-cognizable offence. Trials: Summary, Summon, and warrant trials.

Unit-V: Indian Evidence Act

Indian Evidence Act– History in India. Evidence– Meaning, principles, and concept of relevancy and Fact; Admissibility. Confessions and dying declaration. Presumption of fact and law, Burden of proof.

RECOMMENDED READINGS:

1. Guar K.D., (1995) Criminal Law, Oxford University Press
2. Kelkar, R.V., (1996) Outlines of Criminal Procedure
3. Pillai, A.P. S., (1996) Criminal Law, N.M. Tripathi.
4. Ratanlal and Dhirajlal (1995) Code of Criminal Procedure
5. SarathyVeppa P. (1994) Elements of Law of Evidence, Eastern book Co., Lucknow.
6. Singh, A., (1995) Law of Evidence, Allahabad Law agency.

Mapping of Course Outcomes to Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	High	High	Low	High	High	High	Low	Low
CO2	High	Low	Medium	High	High	Low	Medium	High
CO3	Medium	Medium	Low	High	High	Medium	Low	High
CO4	Low	Medium	Low	Medium	Medium	Medium	Low	Medium
CO5	Low	High	High	Low	Low	High	High	Low
Correlation Levels: Low Medium High								

Mapping of Course Outcomes to Programme Specific Outcomes (PSOs)

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	High	High	Medium	Medium	High
CO2	Medium	Low	Low	Medium	Low
CO3	High	High	High	Low	Medium
CO4	Medium	Low	Low	Low	High
CO5	Low	Medium	Medium	High	High
Correlation Levels: Low Medium High					

SKILL ENHANCEMENT COURSE- 2
FORMS OF CYBERCRIMES

Course Code	Sub Code	TITLE OF THE COURSE	L	T	P	C
SEC 2		Forms of Cybercrimes	2	0	0	2

L:Lecture T:Tutorial P:Practical C:Credits

Course Objectives

The main objectives of this course are

- To introduce the students to the cybercrimes, impacts and cyber law. The students will be informed of cyberspace. The counter and precautionary measures in matters relating to cybercrimes. The investigation cybercrime will be introduced to students.

Course Outcomes (COs):

At the end of this course of study, the student will be able to

CO No.	Course Outcomes	Cognitive Levels
CO1	Understand forms of cybercrimes.	K1 K2
CO2	Discuss data and identify data sources.	K3
CO3	Narrate and describe forms of digital evidences.	K1 K4
CO4	Compare and contrast the differences between digital evidence and traditional evidence.	K6
CO5	Understanding the concepts of cyber law and IPR. .	K2

K1: Remember K2: Understand K3: Apply K4:Analyze K5: Evaluate K6: Create

Course Outline:

Unit I: Introduction

Origin – History and Nature of Cybercrime: Definition - evolution, cyber-crimes, cyber space. Forms of Malicious Code - Computer Viruses, Computer Worms, Computer Trojans, Web Hacking, Denial of Service Attacks, Email Hacking using Packet Sniffers, Email Hacking & Phishing and cyber-crime- Best Practices for Cyber Crime Investigation – Scope of computer in criminal justice system.

Unit II: Computer Forensic

Computer Forensic- Nature of Digital Evidences, Retrieval and Analysis of Digital Evidence, Computer Security and its relationship to Computer Forensics, Extraction Tools (Autopsy, Encase, Cellebrite UFED etc.), Emergence of Computer Crime: Classification of Computer Crimes, Computer Virus and Types, Characteristics of Computer Crime and Criminals, Prevention from Cyber Crime.

Unit III: Cyber Crime Investigation

Recovery of Digital Evidence, setting up a Cyber Crime, Investigation Cell - Manipulating Cookies - Email Hacking, Computer Forensic - Role of investigator, Role of Police, Role of Victim – Secondary victimization – privacy of information. Initialising a Search and Seizure Operation, Tracking & Tracing Emails- Foot printing, Port Scanning.

Unit IV: Cyber Law and Counter Measures

Case Studies in Cyber Crimes in India, USA and UK– preventive measures - computer as tool for crime- Cyber terrorism- Prevention and detection of cybercrime - Fraud and identity theft.

Cyber Policing- Current statutes in India: Penalties & Administrative Monetary Penalties (**amp**); Offences under the Information Technology Act, 2006.

Unit V: Intellectual Property Rights

Intellectual Property Issues and Cyberspace– The Indian Perspective: Overview of Intellectual Property related Legislation in India, Copyright law & Cyberspace Trademark law &

Recommended Readings

1. Hill, J., & Marion, N. (2016). Introduction to cybercrime. Westport, CT: Praeger
2. Hynson, C. (2012). Cybercrime. Mankato, MI: Smart Apple Media.
3. Albert J. Marcellaa and Robert S. Greenfiled (Ed) (2002) Cyber Forensics, A Field Manual for collecting, examining and preserving evidence of computer crimes, Auerbach publications. Derek Atkins et. al., (1997). Internet Security: Professional Reference, Techmedia, Daryaganj, New Delhi.
4. Seymour Goodman and Abraham Soafer (ed.) (2002) The Transnational dimensions of cybercrime, Hoover Institution Press Washington.
5. IT Act 2000 amended in 2006.

Mapping of Course Outcomes to Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	Low	Low	Medium	High	Low	Low	Medium	Low
CO2	Low	Medium	High	High	Medium	High	Medium	Medium
CO3	Medium	High	High	High	High	Medium	Medium	Medium
CO4	High	High	Medium	High	High	Medium	Medium	Low
CO5	Medium	Medium	Medium	High	Medium	Medium	Medium	Low
Correlation Levels: Low Medium High								

Mapping of Course Outcomes to Programme Specific Outcomes (PSOs)

	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO1	Medium	Low	Low	Medium	High
CO2	Medium	Low	Medium	High	High
CO3	High	Low	Medium	High	High
CO4	High	Low	Medium	High	Medium
CO5	High	Low	Medium	Medium	High
Correlation Levels: Low Medium High					

SKILL ENHANCEMENT COURSE- 3
FORENSIC SCIENCE- LAB

Course Code	Sub Code	TITLE OF THE COURSE	L	T	P	C
SEC 3		Forensic Science- Lab	0	0	2	2

Course Objectives:

The main objectives of this course are

- The main objective of the paper is to understand the ways 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 frauds and forgeries by analysing questioned documents.

Course Outcomes (COs):

At the end of this course of study, the student will be able to

CO No.	Course Outcomes	Cognitive Levels
CO1	Understand analyse various types of questioned documents	K1 K2
CO2	Application of tools in analysing the questioned documents.	K3
CO3	Familiarize with concept of documents and its comparison.	K4 K5
CO4	Understand the alteration and forgeries in document.	K2
CO5	Explore counterfeit currencies and its nuances.	K3 K5
K1: Remember K2: Understand K3: Apply K4:AnalyzeK5: Evaluate K6: Create		

Course Outline:**Practical's:**

- To cite examples of crime cases in which apprehensions arose because of Daubert standards.
- Alteration in questioned documents
- Analysis of Hair and Fibre.
- To study procedures of Packing & Forwarding of various Evidences.
- Comparison of Signatures, different type of forged and disguised signature
- Check and compare handwritings
- Check the seal and ink used in questioned documents
- To Examine Security Features of Indian Currency Notes.
- Analysis/ comparison of glass fractures
- Comparison of Soil colour test.

RECOMMENDED READINGS:

- O. Hilton, Scientific Examination of Questioned Documents, CRC Press, Boca Raton (1982).
- A.A. Moenssens, J. Starrs, C.E. Henderson and F.E. Inbau, Scientific Evidence in Civil and Criminal Cases, 4th Edition, Foundation Press, New York(1995).
- R.N. Morris, Forensic Handwriting Identification: Fundamental Concepts and Principles, Academic Press, London(2000).
- E. David, The Scientific Examination of Documents – Methods and Techniques, 2nd Edition, Taylor & Francis, Hants (1997).

Mapping of Course Outcomes to Programme Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
CO1	High	High	High	High	Low	High	Medium	High
CO2	Low	Medium	High	Low	Medium	High	Medium	High
CO3	Medium	High	Medium	Medium	Low	High	Low	High
CO4	High	Medium	Low	Medium	Low	Medium	Low	Medium
CO5	High	Low	Low	High	High	Low	High	Low
Correlation Levels: Low Medium High								

Mapping of Course Outcomes to Programme Specific Outcomes (PSOs)

	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	High	High	Medium	Low	High
CO2	High	Low	Low	Medium	High
CO3	Medium	High	High	Low	High
CO4	Low	Low	Low	Low	Medium
CO5	Low	Medium	Medium	High	Low
Correlation Levels: Low Medium High					