



Course Syllabus  
Gyanmanjari Science College  
Semester-3 (B.Sc)

**Subject:** Forensic Science and Criminology BSCFS13301

**Type of course:** Major

**Prerequisite:** Basic understanding of chemistry and biology is recommended.

**Rationale:** After studying this paper the students will get basic concept and characteristic of forensic science and crime.

**Teaching and Examination Scheme:**

Teaching Scheme			Credits	Examination Marks					Total Marks
CI	T	P		C	SEE		CCE		
			Theory		Practical	MSE	LWA/V	ALA	
3	0	2	4	75	25	30	20	50	200

*Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; SEE - Semester End Evaluation; MSE- Mid Semester Examination; LWA - Lab Work Assessment; V – Viva voce; CCE-Continuous and Comprehensive Evaluation; ALA- Active Learning Activities.*

**Course Content:**

Unit No	Course Content	Hrs	% Weightage
1	Definitions and concepts in forensic science. Scope of forensic science. Branches of forensic science. Duties of forensic scientists. Role of forensic Scientist, Police Officer, Judicial Officers and Medico legal expert. Relationship between Forensic expert and judiciary officer, Importance of FSL, National and International scenario of FSL.	12	28%
2	Types of Crime and its causes; Definition of Crime Scene, Classification of crime Scene: indoor and outdoor, primary and secondary, macroscopic and microscopic crime scene protection of crime scene and its importance. Significance of crime scene, argument and ethics of crime scene, initial response, role of first	10	20%



	responding officer, duty management		
3	Crime scene management: Introduction to crime scene management, duties of first responding officer at the scene of crime, duties of crime scene investigator, processing of scene of crime: plan of action, protection of scene of crime, photography and video recording of crime scene, sketching of crime scene, searching, collection, preservation, packing of physical evidence, documentation of crime scene, forwarding or dispatch of exhibit in to the laboratory, chain of custody, collection of standard/reference samples.	12	28%
4	Introduction to Criminal justice system in India, Cognizable and non-cognizable offences Introduction to Indian Penal Code (IPC), Criminal Procedure Code (Cr. PC) and Indian Evidence Act (IEA). Policing styles and principles. Police's power of investigation. Filing of criminal charges. Human rights and criminal justice system in India.	11	24%

### Continuous Assessment:

Sr. No	Active Learning Activities	Marks
1	<b>Country Comparison:</b> Have students compare the structure and functions of FSLs in different countries. They can present their findings using visuals such as charts or graphs to highlight similarities and differences and upload it on GMIU Web portal	10
2	<b>Movie Mania:</b> List out atleast ten movies which are based on forensic science and write 100 words for each movie.	10
3	<b>Imaginary Crime Scene:</b> Create an imaginary crime scene of house burglary and write atleast 100 words for the same.	10
4	<b>Criminal Justice System Timeline:</b> Student must prepare the development of the Indian criminal justice system (3 groups) (e.g., pre-independence, post-independence, modern era). Have them research key events, reforms, and milestones during their assigned period, then create a timeline to present to the class.	10
5	<b>Attendance</b>	10
Total		50



**List of Practical:**

Sr. No	Descriptions	Unit No	Hrs
1	Exploring the historical aspects of criminal cases (Any 2) through the lens of forensic science	All	4
2	To study the set up of different forensic science organizations in India.		4
3	To compare the duties of forensic scientists of different famous organizations.		4
4	To cite examples of crime cases in which the media acted as a pressure group.		4
5	To prepare a report on interrogation cells and suggest improvements.		4
6	To review the sections of forensic science at INTERPOL and compare with those in Central Forensic Science Laboratories in India.		4
7	To evaluate how rising standards of living affect crime rate.		4
8	To examine steps being taken for rehabilitation of former convicts and suggests improvements.		2
		Total	30

**Suggested Specification table with Marks (Theory):75**

Distribution of Theory Marks (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	25%	30%	30%	10%	5%	00

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

**Course Outcome:**

After learning the course the students should be able to:	
CO1	Know about organizational set up and development of Forensic Science laboratories.



CO2	Understand the crime, crime scene and role of investigating officer.
CO3	Apply the methods and techniques for evidence collection and crime scene management.
CO4	Evaluate the sections of IPC, CrPC and IEA.

### Instructional Method:

The course delivery method will depend upon the requirement of content and need of students. The teacher in addition to conventional teaching method by black board, may also use any of tools such as demonstration, role play, Quiz, brainstorming, MOOCs etc.

From the content 10% topics are suggested for flipped mode instruction.

Students will use supplementary resources such as online videos, NPTEL/SWAYAM videos, e-courses, Virtual Laboratory

The internal evaluation will be done on the basis of Active Learning Assignment

Practical/Viva examination will be conducted at the end of semester for evaluation of performance of students in laboratory.

### Reference Books:

[1] B.R.Sharma : Forensic science in criminal Investigation & Trails.

[2] S.H. James and J.J. Nordby, Forensic Science: An Introduction to Scientific and Investigative Techniques, 2nd Edition, CRC Press, Boca Raton

[3] B.B. Nanda and R.K. Tiwari, *Forensic Science in India: A Vision for the Twenty First Century*, Select Publishers, New Delhi.

