

**B.Sc. Forensic Science: Semester-III**

**FST302: Criminalistics**

Teaching Scheme	Examination Scheme
Lectures: 3 hrs/Week	Class Test: 12 Marks
Tutorials: 1 hr/Week	Teachers Assessment: 6 Marks
Credits: 4	Attendance: 12 Marks
	End Semester Exam: 70 marks

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

- The methods of securing, searching and documenting crime scenes.
- The art of collecting, packaging and preserving different types of physical and trace evidence at crime scenes.
- The legal importance of chain of custody.
- The tools and techniques for analysis of different types of crime scene evidence.

**Unit 1: Crime Scene Management**

Types of crime scenes – indoor and outdoor, primary and secondary. Securing and isolating the crime scene.

Crime scene search methods. Legal considerations at crime scenes.

Documentation of crime scenes – photography, videography, sketching and recording notes.

**Unit 2: Crime Scene Evidence**

Classification of crime scene evidence – physical, biological and trace evidence. Locard's principle. Collection, labeling, sealing of evidence. Hazardous evidence. Preservation of evidence.

**Unit 3: Investigation**

Duties of first responding officer at crime scenes. Coordination between police personnel and forensic scientists at crime scenes. The evaluation of 5Ws (who?, what?, when?, where?, why?) and 1H (how?).

Chain of custody. Reconstruction of crime scene.

**Unit 4: Forensic Physics**

Glass evidence – collection, packaging, analysis. Matching of glass samples by mechanical fit and refractive index measurements. Analysis by spectroscopic methods. Fracture analysis and direction of impact.

Paint evidence – collection, packaging and preservation. Analysis by destructive and non-destructive methods. Importance of paint evidence in hit and run cases.

Fiber evidence – artificial and natural fibers. Collection of fiber evidence. Identification and comparison of fibers.

Soil evidence – importance, location, collection and comparison of soil samples.

Cloth evidence – importance, collection, analysis of adhering material. Matching of pieces.

**Unit 5: Tool marks**

Classification of tool marks. Forensic importance of tool marks. Collection, preservation and matching of tool marks. Restoration of erased serial numbers and engraved marks.

Head

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