



**Gyanmanjari**  
Innovative University

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

**Subject:** Forensic Medicine-MSCFS13515

**Type of course:** Major

**Prerequisite:** Students should have a basic knowledge of Forensic science and human body.

**Rationale:** Forensic medicine study applies to medical knowledge to legal investigations, particularly in determining the cause of injury or death. It plays a crucial role in criminal justice by providing evidence for courts, aiding in the identification of victims, and ensuring accurate documentation of trauma, poisoning, or abuse.

### Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks					Total Marks
CI	T	P	C	Theory Marks		Practical Marks		CA	
				ESE	MSE	V	P	ALA	
4	0	0	4	60	30	10	00	50	150

*Legends: CI-Class Room Instructions; T – Tutorial; P - Practical; C – Credit; ESE - End Semester Examination; MSE- Mid Semester Examination; V – Viva; CA - Continuous Assessment; ALA- Active Learning Activities.*

4 Credits \* 25 Marks = 100 Marks (each credit carries 25 Marks) Theory  
SEE 100 Marks will be converted in to 50 Marks  
CCE 100 Marks will be converted in to 50 Marks



**Course Content:**

Unit No.	Course content	Hrs	% Weight age
1	<b>Medical Jurisprudence and Ethics and legal procedure:</b> Medical Council of India (MCI), Functions of MCI, State Medical Council (SMC), Duties of a Doctor, Medical Malpractice, Unethical Acts, Professional Misconduct (Infamous Conduct), Erasure of Name, Red Cross Emblem, Types of Physician-Patient Relationship, Professional Negligence, Preventing Medical Litigation, Inquest, Police Inquest, Magistrate Inquest, Courts of Law, Subpoena or Summons, Conduct Money, Medical Evidence, Types of Witness, Recording of Evidence, Conduct and Duties of a Doctor in the Witness Box.	15	25
2	<b>Medico-legal Autopsy:</b> Purpose/Objectives of Autopsy, Procedure for Medico-legal Autopsies, Instruments for Autopsy Examination, External Examination, Internal Examination (Evisceration), Skin Incisions, Evisceration Methods, Examination Proper, Chest, Heart, Neck, Skull and Brain, Description of an Organ, Report, Demonstration of Pneumothorax, Collection of Samples, Preservation of Viscera, Preservation of Samples, Samples for Laboratory Investigations, Obscure and Negative Autopsy, Second Autopsy, Examination of Decomposed, Mutilated and Skeletonized Remains, Medico-legal Questions, Exhumation	15	25
3	<b>Thanatology and signs of death:</b> Brain/Brainstem Death, Mechanism and Manner of Death, Cause of Death, Modes of Death (Proximate Causes of Death), Anoxia, Sudden Death, Coronary Atherosclerosis, Immediate Changes (Somatic Death), Suspended Animation (Apparent Death), Early Changes (Molecular Death), Algor Mortis, Livor Mortis, Rigor Mortis, Cadaveric Spasm, Decomposition/Putrefaction, Adipocere, Mummification, TSD or Postmortem Interval.	15	25
4.	<b>Injuries :</b> Classification of Wounds/Injuries, Abrasion, Bruise/Contusion, Lacerated Wound, Incised Wound (Cut/Slash/Slice), Chop Wounds, Stab Wound/Punctured Wound, Defense Wounds, Therapeutic or Diagnostic Wounds, Fabricated/Fictitious/Forged Wounds.	15	25



**Continuous Assessment:**

Sr. No	Active Learning Activities	Marks
1.	<b>The Inquest Quest</b> Students have to take various fictional death scenarios—ranging from road traffic accidents and suspected suicides to custodial deaths and deaths of women under suspicious circumstances. Each scenario includes enough detail for students to analyze and determine the appropriate type of inquest: police inquest or magistrate inquest. Students are required to write their decisions, clearly justify the type of inquest chosen, and explain the procedural differences between them and upload it on GMIU portal	10
2.	<b>Mark the cut</b> Students have to take a blank outline of human body image (front and back view). They are required to draw and label the standard skin incisions used in medico-legal autopsies—namely the I-shaped, Y-shaped, and Modified Y incisions. Beside each incision, students write brief notes indicating which organs can be accessed through that particular approach and upload it on GMIU web portal.	10
3.	<b>Autopsy Report Builder</b> Students should pick a fictional case (e.g., sudden death of a 35-year-old male) and must write a brief autopsy report. It includes identification details, key external findings, internal examination with three organ descriptions, and an opinion on the probable cause of death and upload it on GMIU web portal.	10
4.	<b>Freeze, Flow, Fix</b> It is a pen-and-paper task where students fill a table comparing algor, livor, and rigor mortis based on onset, progression, influencing factors, and forensic value. They also solve short case questions to estimate time since death using body temperature, posture, and lividity clues and upload it on GMIU web portal.	10
5.	<b>Wound Detective</b> Students have to write descriptions of different types of injuries, such as abrasions, bruises, lacerations, stab wounds, and others. Their task is to classify each injury based on the description provided, then describes the key characteristics of each wound type (such as shape, depth, and nature) and upload it on GMIU web portal.	10
<b>Total</b>		<b>50</b>



**Suggested Specification table with Marks (Theory):60**

<b>Distribution of Theory Marks</b> (Revised Bloom's Taxonomy)						
Level	Remembrance (R)	Understanding (U)	Application (A)	Analyze (N)	Evaluate (E)	Create (C)
Weightage	30%	30%	30%	10%	00	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	Gain knowledge of the duties of a doctor in maintaining ethical standards and legal responsibilities.
CO2	Understand the purpose and objectives of conducting a medico-legal autopsy and its importance in legal investigations.
CO3	Recognize the immediate changes occurring in the body after death, including the process of somatic death.
CO4	Identify and describe the characteristics of abrasions and bruises/contusions, and their forensic significance.

**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] *Knight's Forensic Pathology* (3rd ed.) Knight, B. (2004). Arnold Publishers.
- [2] *Forensic Medicine and Toxicology*. Saxena, A., & Saxena, R. (2006). CBS Publishers & Distributors.
- [3] *Medicine: Clinical and Pathological Aspects*. Luntamo, N., & Keown, S. (2006). Churchill Livingstone.
- [4] *Essentials of Forensic Medicine and Toxicology* (6th ed.). Parikh, C. K. (2005). CBS Publishers & Distributors.
- [5] *Forensic Pathology: Principles and Practice* Byard, R. W. (2011). Academic Press.

