



Forensic Medicine & Toxicology Academic Museum and Skill Lab

User Hand Book & Manual

Department of
Forensic Medicine & Toxicology



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Assoc. Prof. & Head
Forensic Medicine & Toxicology

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01.Introduction:

The Department of Forensic Medicine & Toxicology at Brahmanbaria Medical College (BMC) has been established with a committed team of experienced teachers, dedicated to imparting high quality teaching, practical training and medicolegal education to medical students.

Forensic Medicine is the branch of medical science which applies medical knowledge for the administration of justice. This laboratory teaching helps the students to acquire knowledge and skills in medicolegal examination, injury interpretation, autopsy procedure, identification, toxicology and related fields.

Our Approach

This Museum and laboratory manual are designed to guide students in developing observational ability, analytical thinking, medicolegal reasoning and practical skills through hands-on learning, demonstration and systematic documentation. Ethical conduct, scientific attitude and professionalism are emphasized in all practical activities.

02. Vision, Mission & Objectives:

Vision

To be a leading department in forensic education, research and service, contributing to justice, public health and society.

Mission

To provide quality education, practical training and research opportunities in forensic medicine and toxicology with ethical and professional excellence.

Objectives

- To impart sound knowledge of medico legal principles.
- To train students in practical medico legal examination and autopsy procedures.
- To develop skills in injury interpretation, toxicological analysis Andevidential handling.
- To encourage research and community oriented activities

03. Rules & Safety Protocol:

- Students must wear clean white coat/apron, proper shoes and personal protective equipment (gloves, mask) during all practical sessions.
- Silence, discipline and respectful behavior must be maintained in the laboratory, museum and mortuary
- Handle all instruments, models, specimens and exhibits with utmost care. Any damage must be reported immediately.
- Do not touch, remove or shift any instrument, specimen or exhibit without permission.
- Photography or recording in the laboratory/mortuary is strictly prohibited without authority.
- Maintain proper infection control and hygiene during autopsy and specimen handling.
- All biological waste, sharp materials and chemicals must be discarded in designated containers according to biosafety and waste-disposal guidelines.
- Follow universal precautions and hand hygiene before and after every session.
- Smoking, eating, drinking and use of mobile phones are strictly prohibited.
- Students must sign the attendance register at the beginning and of each session.
- Any violation of rules may result in disciplinary action.

04. Department & Infrastructure

The Department of Forensic Medicine & Toxicology is located on the 1st Floor (of the college building) of Brahmanbaria Medical College. The department is well equipped for teaching, training and research.

Faculty & Staff Strength

Designation	Number
Professor	01
Associate Professor & Head	01
Assistant Professor	01
Lecturer	02
Demonstrator	01
Laboratory Technologist	01
Office Assistant	01
Total	08

Infrastructure:

- Demonstration Hall with audio-.visual facilities
- Forensic Museum with weapons, injuries, bones & exhibits
- Seminar/Tutorial Room
- Departmental Library & Faculty Room
- Store & Record Room

03 Corners:

Dummy Corners

Chemical Substances

Mechanical Device

05. Practical Sessions & Expected Skills:

Practical classes form an essential part of the curriculum. Through practical sessions students will be able to observe, examine and interpret medico legal cases and specimens.

Technical Skills:

- Identification and documentation of injuries & their medicolegal importance.
- Identification of weapons, bones and other medicolegal exhibits.
- Conducting autopsy and preparation of post-mortem report.

Soft Skills:

- Analytical and critical thinking for medicolegal interpretation.
- Ethical behavior and professional attitude.
- Clear documentation.
- Communication skills and courtroom demeanor.
- Teamwork and respect for human dignity

O6. Forensic Medicine Practical Curriculum
(2nd Professional MBBS Examination):

Term	Contents/ Topics	Teaching Hours
Term I	1. Da 2. Ram Da 3. Kitchen Knife 4. Dagger 5. Roller 6. Blade 7. Pin 8. Chopper 9. Fire arm 10. Teta 11. Rope	27 hrs
Term II	1. Stomach wash Tube 2. Sulphuric Acid 3. HCL Acid 4. Nitric Acid 5. Kerosine Oil 6. Organophosphorus Compound 7. Paracetamol 8. Dhatura 9. Cannabis Indica 10. Barbiturate 11. Arsenic 12. Lead 13. Mercury	13 hrs

07. Teaching Aids & Instructional Materials:

1. Departmental Facilities:

- Museum with weapons bones, injuries, poison samples & charts
- Demonstration hall with LCD projector & smart board

2. Teaching Aids:

- Models human skeleton, skull, placenta, fatal models
- Charts, posters, photographs, slides and digital images
- Video demonstrations of autopsy and procedures
- Specimen jars of poisons, biological samples, injuries

3. Library & ICT Facilities:

- Standard textbooks, journals, reference books & practical manuals
- Computer with internet & forensic databases
- Digital microscopes and photography equipment

4. Safety & Biosecurity Facilities:

- PPE gloves, Mask, apron, face shield, gum boots
- Biohazard waste bins & sharp containers
- Eyewash station, first aid box, Fire extinguisher
- Adequate ventilation and lighting

08. Consolidated Teaching Hours For Practical:

The 2nd Professional M885 curriculum mandates a meticulous allocation of tutorial, lecture and practical hours over the academic terms.

Academic Term	System	Lecture Hours	Tutorial Hours	Practical Hours
1 st Term	1. Introduction & recent advances in Forensic Medicine 2. Legal aspect 3. Clinical Forensic Medicine & Forensic Pathology	72 hours	35 hours	27 hours
2 nd Term	1. Forensic Toxicology 2. Forensic psychiatry 3. Medical jurisprudence 4. Forensic aspect of reproduction	29 hours	10 hours	13 hours
Day visit : 12 days				
Autopsy : 08 days Thana: 01 day, Court: 01 day, OCC: 01day, DNA Lab/CID Lab: 01 day				

9. Practical Marks Distribution (2nd Professional MBBS):

Practical Examination Component	Marks
OSPE	65
Generic Topics	05
Integrated Teaching	10
Practical Note Book (Weapon & Poison)	05+05 + 10
Medico legal Report	05
Medico legal Certificate	05
Total	100

10. List of Instruments & Museum Specimens:

A. Important Instruments:

- Autopsy instruments set (scalpel, scissors, forceps, probes, saws etc.)
- Bone saw, rib shears, skull saw, budget saw
- Measuring tape, Toxicology glassware: test tubes, beakers, pipettes, burettes, funnels, Jar
- Analytical balance, pH meter, water bath, centrifuge
- Microscope, slides
- fingerprint kit, magnifier, evidence collection kit:

B. Museum Specimens:

- Different types of weapons (sharp, blunt, firearms)
- Injured body parts in jars and photos
- Poison samples (corrosive, metallic, organic, pesticides)
- Placenta, fetus specimens

Autopsy Demonstration Guidelines

1. Learning objectives

- Understand the purpose and types of autopsy.
- Identify external and internal postmortem findings.
- Observe systematic examination of body organs.
- Learn specimen collection and documentation.
- Correlate autopsy findings with the cause and manner of death

2. Preparation

- Obtain all legal permissions before the demonstration.
- Ensure students are briefed on professional conduct and confidentiality.
- Use appropriate personal protective equipment (PPE): gloves, gown, mask, eye protection, and closed shoes.
- Follow infection prevention and biosafety measures.

3. During the demonstration

- Introduce the case briefly without revealing unnecessary personal identifiers.

Demonstrate:

- External examination
- Identification marks
- Postmortem changes
- Injuries, if present
- Opening of body cavities
- Examination of thoracic, abdominal and cranial organs
- Organ removal techniques (overview)
- Collection of specimens for histopathology, toxicology, and other investigations (as appropriate)
- Explain significant findings and their medico-legal importance.

4. Student conduct

- Maintain respect and dignity for the deceased.
- No photography or video recording unless specifically authorized.
- No eating, drinking, or unnecessary conversation in the mortuary.
- Follow the instructor's instructions at all times.

5. Post-demonstration

- Discuss the probable cause and manner of death.
- Allow students to ask questions.
- Dispose of biomedical waste according to institutional guidelines.
- Perform hand hygiene after removing PPE.

6. Assessment

- Viva voce on postmortem changes, organs, injuries, and specimen collection.
- OSPE/spotter using autopsy findings or specimens.
- Short case discussion based on the demonstrated autopsy.

Department of Forensic Medicine & Toxicology Brahmanbaria Medical College



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Serial No.	Date	Name of the Experiment	Page No.	Initials	Remarks
01.	18.06.25	Introduction of forensic medicine	(1-5)		
02.	21.06.25	Introduction of forensic toxicology and general aspects of poison	(6-7)		
03.	29.06.25	General management of poisoning cases	8		
04.	26.06.25	Study of H_2SO_4	(9-10)		
05.	29.06.25	Study of HNO_3	11		
06.	02.07.25	Study of HCl	12		
07.	09.07.25	Study of carbolic acid	13		
08.	12.07.25	Study of oxalic acid	14		
09.	17.07.25	Study of organophosphorus compound	15		
10.	26.07.25	Study of snake venom	16		
11.	31.07.25	Study of arsenic poisoning	17		
12.	02.08.25	Study of opium poisoning	18		
13.	05.08.25	Study of barbiturates poisoning	19-20		
14.	07.08.25	Study of kerosene oil poisoning	21		
15.	09.08.25	Study of tharwa poisoning	22		
16.	12.08.25	Study of <i>Cannabis indica</i>	23		
17.	15.08.25	Study of alcohol poisoning	(24-25)		
18.	29.08.25	Study of <i>Viverra zibethica</i> preservation and procedure	(26-27)		
This is to Certify that Mr./Miss A Student of Class Roll No. Has Performed the Required Number of Experiments in School/College/University as per Syllabus During the Session					
					Head of the Department

INDEX					
Sl No.	Date	Name of the Experiment	Page No.	Initial	Remarks
01.	15.01.26	Introduction of Forensic Medicine	01-08		
02.	23.01.26	Study of weapon	09-14		
03.	31.01.26	Study of wound	15-17		
04.	09.02.26	Study of abrasion	18-19		
05.	19.02.26	Study of Bruise	20-21		
06.	25.02.26	Study of Lacerated wound	22-23		
07.	03.03.26	Study of incised looking wound.	24-25		
08.	07.03.26	Study of cut throat wound	26.		
09.	28.03.26	Study of punctured wound	27		
10.	04.04.26	Study of firearm & gun shot wound.	28-31		
11.	20.04.26	Study of Bomb blast	32		
12.	20.04.26	Study of legal procedure and court.	33-37		
25.04.26					

OSPE 18

Station No: 02

Time- 05 Minutes

Total Marks- 05



Marks

a) Identify the sample from the above image.

01

b) Mention its types.

01

c) Write down its characteristic's features.

02

(d) Write down its medicolegal importance?

01

Department of Forensic Medicine & Toxicology

Brahmanbaria Medical College



POST MORTEM REPORT

BRAHMANBARIA MEDICAL COLLEGE

Ref.P.S.: Serial Model there, Brahmanbaria

UD/GD/Case No.: 1082

Date: 25-06-2025

Brahmanbaria Sadar

STATION: Hospital, Brahmanbaria

25th Day of June 2025

Name, Sex, Age and Caste	From where brought village and thana	Name of constable, by whom brought of name of relatives accompanying	Date and hour of			Information furnished by police	By whom identified before the Medical Officer
			Despatch	Arrival at Mortuary	P.M. Examination		
Miss. Hira Akter Female Age - 15 years Muslim	Chandpur, Sonail, Brahmanbaria	Md. Rahman Khan pathan C/No - 580	25.6.2025 at 2.00 AM	25.6.2025 at 8:35 AM	25.6.25 at 12:30 PM	As per inquest and Cholon	Police Seeing.

N.B. Observe the state of all organs and when no disease of injury is found write "Healthy"

N.B. - Observe the state of all organs and when no disease of injury is found write "Healthy"																
I. EXTERNAL APPEARANCE	1. Condition or subject stout, emaciated, decomposed etc		2. Wounds-position, size, character		3. Bruises-position size and nature		4. Marks of ligature on neck dissection etc.									
	Body built - Absent RM — Absent Mouth — open eye — open		Not external injury were found, only white froth discharge found		No external injury were found, only white froth found		No external injury were found, only white froth discharge found.									
II. CRANIUM AND SPINAL CANAL	1. Scalp-Skull and vertebrae		2. Membrane		3. Brain and Spinal Cord (The Spinal Canal need not to be examined unless and indication of disease or injury exists.											
	Skull - intact Scalp - intact		Congested		Congested											
III. THORAX	1. Walls ribs and cartilages		2. Pleurae		3. Larynx and Trachea		4. Right lung		5. Left lung		6. Pericardium		7. Heart		8. Blood Vessels	
	Healthy		Congested		Congested		Congested		Healthy		Healthy		full		Healthy	

IV. ABDOMEN	1. Walls	2. Peritoneum	3. Mouth, Pharynx and esophagus	4. Stomach and its contents	5. Small intestine and its contents	6. Large intestine and its contents
	Healthy	Congested	Congested	liquid diet	Congested	Congested
	7. Liver	8. Spleen	9. Kidneys	10. Bladder	11. Organs of generation external and internal	
	Congested	Congested	Congested	Empty	Healthy.	
V. MUSCLES BONES AND JOINTS	1. Injury	2. Disease or deformity	3. Fracture	4. Dislocation		
	As stated	Not possible to be	Nil	Nil.		
MORE DETAILED DESCRIPTION OF INJURY OR DISEASE	on dissection: All the internal organ congested. No other injury found. The following viscera are - (i) stomach with its full content (ii) liver 500gm (iii) longitudinal half of each kidney kept pressure and hand over to escorting police constable for it to chief chemical examination for office for the chemical analysis.			injury found. The following viscera are - (i) stomach with its full content (ii) liver 500gm (iii) longitudinal half of each kidney kept pressure and hand over to escorting police constable for it to chief chemical examination for office for the chemical analysis.		
	OPINION OF THE MEDICAL OFFICER AS TO THE CAUSE AND MANNER OF DEATH			REMARKS BY CIVIL SURGEON		
opinion kept pending till the receipt of the chemical analysis report of the supplied viscera			20.06.25			
Assistant Surgeon			Civil Surgeon			
The			Day			
			20			

Student's: Md. Arif

Batch: 20

Roll No. 10-6

Department of Forensic Medicine & Toxicology Brahmanbaria Medical College



Attested Photograph of Victim

DEPARTMENT OF FORENSIC MEDICINE
Brahmanbaria Medical College
Ghatuta, Brahmanbaria

Medicolegal Examination Report of Victim
(Alleged rape and age)

Serial No.: Date: 27-02-26

Reference: Kosba Thana, case no- 50, Date- 15-04-2025

Name of the victim: Ayesha
Age: 18 years, Sex: Female, Religion: Islam, Occupation: student
Father's/Mother's/Husband's Name: Rohmat Ali
Address: Village: Ortagram, District: Brahmanbaria
Accompanied & Identified by: Nasima Akter, CT-151, Post: Kosba

Consent:
ডাক্তারী পরীক্ষার ফলাফল আমার লস্ক বা বিনলস্ক হতে পারে জেনেও আমি আমার গোপনীয়তাই সবকিছু ডাক্তারী পরীক্ষা করতে রাজী আছি/রাজী নই।
সাক্ষী: ১. সালিমুল্লাহ ২. সালেহা Ayesha
ডাক্তারের স্বাক্ষর/টিপসহ

Date & Time of arrival: 15-04-2025 at 10am
Date & Time of Examination: 15-04-25 at 10:30 AM
Name & Address Female Attendant: Sulana Akter (Nurse, department of FM, BBMC)
Identification Marks: one black mole about 2mm indiameter over left side of nose
one whitish scar about 3x1cm over back of left thumb
Marital Status: Unmarried/Married/ Widow/ Separate
Menstrual History: a. Menarche: 4 years ago b. Period: 4-5 days c. L.M.P.: 2 weeks back
Number of pregnancy/Children: N/A
Age of last child: N/A

Short History of incident (Victim's statement):
a) Place of incidence: Jute field in the village of ortagram
b) Date & Time of Incidence:
c) Description of incidence: According to the statement of the Patient she was returning home from her sister's home. On the way manik forced her to near jute field in the village of ortagram and was attacked by him.

Mental State: Depressed
Signs Of Struggle / Injury:
Stained Clothes: Not Supplied

Findings of Physical Examination:
a) Body built: Average Height: 5 feet 2 inch Weight: 50kg
Teeth: 7/7 Total: 28
Breast: 7/7
1. development a. Not developed yet b. Developed
c. Well developed & enlarged d. Pendulous
2. Consistency: a. Soft b. Firm c. Hard
3. Nipple: Not Prominent 4. Areola: Circular
Axillary Hair: Present
Abdomen: Normal

Genital Examination findings/Injuries:
1. Vulva: (a) Mons Pubis: Healthy
(b) Labia Majora: Raddish/ swollen
(c) Labia Minora: Raddish and slightly swollen
2. Hymen: found tear
3. Vaginal Canal: opening in seen
4. Cervix: Normal 5. Fourchette: Rupture 6. Rectuin:
Vaginal Swab Examination:
a) Specimen sent for lab Examination: 10.1.2026
b) Report received on: 11.1.2026
c) Remarks of pathologist: Spermatozoa were not found

Radiological Examination:
a) X-ray exam:
i) Sent for examination on: 10.1.26 ii) Received report on: 14.1.26
iii) Plate no: R-30 iv) Remarks of Radiologist:
b) USG examination: Not done
c) DNA examination: Not done

Others examination: Not done
(Report enclosed)

Opinion: On considering Physical examination reports of Radiological and micropological examination, I'm of the opinion that Ayesha her radiological age is about 16-17 years on her body examination

Signature: Nusrat Jahan Designation:
Registration no. & Seal of the Doctor:
Students Name Nusrat Jahan Roll No. 1031

Department of Forensic Medicine & Toxicology

Brahmanbaria Medical College



Brahmanbaria Medical College Ghatuta, Brahmanbaria 2nd, 3rd & 4th phase Class Routine Clinical Subjects (BMC: 3rd, 4th & 5th year (New) Effective from 10 January 2026

Day	Time 8:00am-9:00am			Time 9:00am-10:00am			Time 10:30am-12:30pm	Time 12:30pm-1:30pm			Time 1:30pm-2:30pm			Time 7:00pm-9:00pm		
	2 nd phase	3 rd phase	4 th phase	2 nd phase	3 rd phase	4 th phase		2 nd phase	3 rd phase	4 th phase	2 nd phase	3 rd phase	4 th phase			
Saturday	FM-Tutorial-A Lecture Practical-B	Pathology Lecture Dr. Abu Aziz Khan Lecture Hall-02	Pedi-L Dr. Shikha Nigam Lecture Hall-01	FM-Tutorial-A Pharmacology-Practical-B	Micro Tutorial	Sur-L Dr. Shikha Nigam Lecture Hall-01	Ward Duty	2nd, 3rd & 4th phase	2 nd phase	3 rd phase	4 th phase	2 nd phase	3 rd phase	4 th phase	2nd, 3rd & 4th phase	
								FM (L) Dr. Md. Shikha Nigam Lecture Hall-02		CM-L (Dr. Mahabub) Pharmacology Tutorial Phase-III Definitive Lecture Hall-02		Med-L Lecture Hall-01	Pathology L Dr. Shikha Nigam Lecture Hall-02	1 st & 3 rd week Ortho-L Dr. Shikha Nigam 2 nd & 4 th week ENT-L Dr. Md. Shikha Nigam Lecture Hall-03	PS/NS/UR/OR allio/R Thryp/Burns Lecture Hall-01	Ward Duty
Sunday	FM (L) Dr. Md. Shikha Nigam Lecture Hall-02	(Obs & Allied) Sur-L Dr. Shikha Nigam Lecture Hall-03	Med-T/P/L Dr. Shikha Nigam Lecture Hall-01	Pharmacology Lecture Dr. Shikha Nigam Lecture Hall-02	CM-L (Dr. Mahabub) Lecture Hall-03	Obs & Gy-L Dr. Shikha Nigam Lecture Hall-01		Ward Duty	FM-Tutorial-B Pharmacology-Practical-A	Micro-L Dr. Md. Shikha Nigam Lecture Hall-02	Sur-T/P	FM-Tutorial-B Pharmacology-Practical-A	Pathology Tutorial	Ortho-L Dr. Shikha Nigam Lecture Hall-01	Ward Duty	
Monday	Pharmacology Lecture Prof. Dr. Shikha Nigam Lecture Hall-02	CM Tutorial	Obs & Gy-L Lecture Hall-01	Med-L Lecture Hall-02	Micro-L Prof. Dr. Shikha Nigam Lecture Hall-02	Med-L Lecture Hall-01		Ward Duty	FM (L) Dr. Shikha Nigam Lecture Hall-02	Pathology-L Dr. Shikha Nigam Lecture Hall-02	Sur Tutorial	Sur Lecture Lecture Hall-02	Sur & Allied 1 st & 3 rd week ENT-L Dr. Md. Shikha Nigam Lecture Hall-02	ENT-L Dr. Shikha Nigam Lecture Hall-01	Ward Duty	
Tuesday	Pharmacology Tutorial / Practical / CCR-B Pharmacology-A	CM Tutorial	Med-T/P	Pharmacology Tutorial / Practical / CCR-B Pharmacology-A	Micro-L Prof. Dr. Shikha Nigam Lecture Hall-02	Obs & Gy-T/P Dr. Shikha Nigam Lecture Hall-01	Ward Duty	FM (L) Prof. Dr. Shikha Nigam Lecture Hall-02	Micro-L Prof. Dr. Shikha Nigam Lecture Hall-02	Pedi-L Dr. Shikha Nigam Lecture Hall-01	Pharmacology Lecture Prof. Dr. Shikha Nigam Lecture Hall-02	CM-L Prof. Dr. Shikha Nigam Lecture Hall-03	Sur-L Prof. Dr. Shikha Nigam Lecture Hall-01	Ward Duty		
Wednesday	FM (L) Prof. Dr. Shikha Nigam Lecture Hall-02	CM Tutorial / Pharmacology Tutorial (Phase-III Definitive)	Ophtha-L Dr. Shikha Nigam Lecture Hall-01	Pharmacology Lecture Dr. Shikha Nigam Lecture Hall-02	CM-L (Prof. Dr. Shikha Nigam) Lecture Hall-02	ENT-L Prof. Dr. Shikha Nigam Lecture Hall-01	Ward Duty	Microbiology L/P/T Prof. Dr. Shikha Nigam Lecture Hall-02	Pathology-L Dr. Shikha Nigam Lecture Hall-03	Med-L Lecture Hall-01	Pathology Tutorial	Micro-L Dr. Shikha Nigam Lecture Hall-02	Sur-L Prof. Dr. Shikha Nigam Lecture Hall-01	Ward Duty		
Thursday	Pathology L/P/T	Ortho-Gy-L Dr. Shikha Nigam Lecture Hall-01	Pharmacology Lecture Dr. Shikha Nigam Lecture Hall-02	Micro Tutorial / Practical	Sur-L Dr. Shikha Nigam Lecture Hall-01		10:15-11:15am (4th Phase) Phy/Med-L Phy-Med-L Lecture Hall-01	Ward Duty	Pharmacology Tutorial / Practical / CCR-A Pharmacology-B	Pathology-L Dr. Shikha Nigam Lecture Hall-02	Med-L Lecture Hall-01	Pharmacology Tutorial / Practical / CCR-A Pharmacology-B	Pathology- T/P	Sur & Allied Lecture Hall-01	Ward Duty	

Note: - Integrated Teaching should be conducted by Phase 02, 03 & 04 coordination committee along collaboration with MEU as per Curriculum
BMC / Adm/ Routine/ 2026/ 009 | Date: 07/01/2026

Prof. Dr. Md. Zakirur Rahman
Principal
Brahmanbaria Medical College



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