

Study Guide Forensic Medicine



Quaid-e-Azam Medical College,
Bahawalpur.

LIST OF CONTENTS

Serial No.	Title	Page No.
1.	Introduction of the Subject	01
2.	Introduction of the Department	02
3.	Administrative Set up	03
4.	General Information	06
5.	Learning Methodology	07
9.	Timetable	12
10.	Table of specifications /Course Content	13
13.	Teaching Program	21
14.	Learning Methodology Detailed	26
15	Assessment	27
16	Reference books	28

INTRODUCTION OF THE SUBJECT:

FORENSIC MEDICINE and TOXICOLOGY implicitly is a conglomerate of two subjects, FORENSIC MEDICINE AND TOXICOLOGY, which are not alike. Both are well recognized specialties of medical science in their own right on the global scenario.

Forensic Medicine can be defined as the medical specialty, which applies the principles and practice of medicine to the elucidation of question in judicial proceedings. The word medicine encompassing all the fields of medical sciences, whereas Toxicology involves all aspects of adverse effects of chemicals on Biological systems which includes their mechanism, identification of Toxic agents, legal ramification being a part of it. So Toxicology, broadly speaking includes occupational, Environmental, Clinical, Analytical and Forensic Toxicology.

Forensic Medicine has not only responded for the contemporary needs of law enforcement, on many instances, it has even stimulated and initiated improvements. Any change or technical advancement in other fields affects the working and expertise of a Medico-legal examiner, as he has to interpret his observation and findings in accordance to the existing laws of the land, The Medico-legal examiner is under constant pressure for keeping himself abreast with the ever-changing fields of law and medicine. The curricula should change accordingly.

The existing medico-legal system of Pakistan requires from a medical officer (Possessing M.B.B.S degree and a medico-legal training of few hours in 3rd year M.B.B.S course) to conduct medico-legal clinical examination of a living person, victim of physical, mental or sexual assault, to perform autopsy on a dead, died of any cause natural or un-natural and to verify, certify and testify his observations to the satisfaction of law enforcers and the courts for the justifiable execution and administration of justice. If the job requirement of graduates requires them to perform postmortems examinations, they should receive appropriate further training after graduation.

INTRODUCTION OF THE DEPARTMENT:

Forensic Medicine is the branch of science which helps the law in searching for the truth to maintain justice in the society. The increasing interest in Forensic Medicine throughout the world is no doubt a result of the global rise in both crime and litigation.

The Department of Forensic Medicine and Toxicology is working with the aim of equipping the medical students with the essential knowledge of crime scene investigation. To meet the upcoming challenges, advance technology and new techniques are also introduced to the students.

The museum of the department is the most modern one having Fiberglass models, wet specimens, instruments and other exhibits like Dura pictures, X-Rays of medico-legal nature and specimen of poisons, weapons etc. Thus, imparting knowledge and contributing to other teaching and training facilities directed to the undergraduate students.

The department has well-furnished and well-equipped Analytical Laboratory dealing with teaching and training in areas of Forensic Toxicology, Forensic Serology, Forensic Anatomy, and Forensic Radiology. The department has got a seminar room where a “general club” is held every fortnight.

Lecture Hall is Air-conditioned with the capacity of one hundred and fifty, furnished with modern audiovisual arrangements.

Laboratory well-furnished and well-equipped dealing with teaching and training in areas of Forensic Toxicology, Forensic serology, forensic anatomy and forensic radiology, the lab has attached preparation room and equipped with instruments, equipment and chemicals, relevant to the nature of work.

Offices for Professor, Associate Professor, Assistant Professor, Lecturers and Administrative / Paramedical Staff.

Seminar room.

Computer room: The department has one computer system with laser printer, Broadband Internet facility is available to staff and students through Wi-Fi.

ADMINISTRATIVE SUET UP:

The department is staffed with One Professor, One Associate Professor, One Assistant Professor, Four Demonstrators, PA to HOD, One Head Lab Assistant, Two Lab Assistants, one Lab Attendant, one Store Keeper and one Naib Qasid.

Offices:

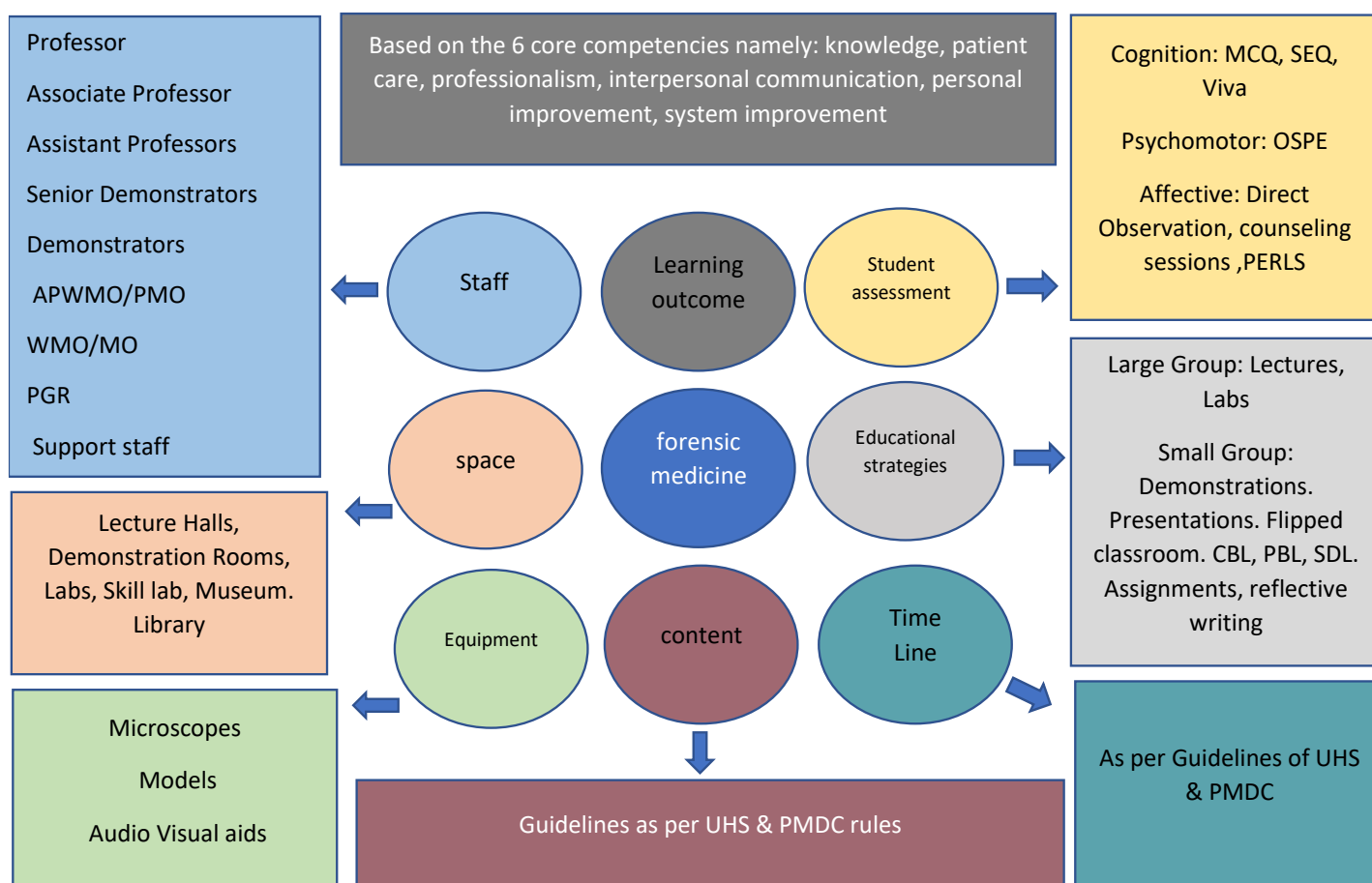
Sr. No.	No. of Offices Available
1	1 (HOD office)
2	1 (Associate Professor Office)
3	1 (Assistant Professor office)
4	1 (Conference /Tutorial Room)
5	1 Demo Room
6	1 (PA office)

TEACHING STAFF

S. NO.	NAME	DESIGNATION
1.	Dr. Talha Naeem	Associate Professor & HOD
2.	Dr. Syed Hamid Anwar	Associate Professor
3.	Dr. Tahreem Abaid	Assistant Professor
4.	Dr. Saima Rehman	Sr. Demonstrator
5.	Dr. Aftab Ali	Sr. Demonstrator
6.	Dr. Hira Anjum	Sr. Demonstrator
7.	Dr. Saima Arshad	Sr. Demonstrator
8.	Dr. M Jamshaid	Demonstrator
9.	Dr. Hira Munir	Demonstrator
10.	Dr. Noor ul Ain	Demonstrator
11.	Dr. Kinza Anjum	Demonstrator

12.	Dr Asma Saleem	Demonstrator
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Curriculum map of Department of Forensic medicine



General Information:

1.1 Mission and Goals

1.2 Professional Values

1.3 Quality policy and Quality objects

1.4 Administrative set up

MISSION & GOALS:

Vision:

Our vision is to be a global leader in transformative medical education and healthcare delivery.

Mission:

To advance the art and science of medicine through innovative medical education, research, and compassionate healthcare delivery, within available resources, in an environment that advocates critical thinking, creativity, integrity, and professionalism.

OBJECTIVES:

To expedite the academic growth and development in undergraduate medical education.

To improve health standards of the community in this underdeveloped region of the world, focus of Medical Education & Research will be on regional medical issues. Trained graduates will successfully execute and streamline the Medical profession and will fill the vacuum in the growing medical schools and industry. Development of human resource, research and technology in this institute will ultimately help in the development of national economy.

PROFESSIONAL VALUES:

The department is committed to maintain highest standard of ethical and professional values while interacting with the public, students and colleagues.

QUALITY POLICY AND OBJECTIVES:

The department ensures the delivery of quality medical education. The teaching curriculum is being revolutionized and brought in line with the international standards to provide community oriented medical education and to produce better health care professionals and system.

Overview:

All major topics will be covered in the form of lectures, CBL's and CPC's in three blocks.

Assessment.

1. Two term exams will be taken at the end of each session as per schedule of the college. The syllabus for the examination will be announced by the department at least 02 weeks prior to examination.
2. Assessment tools to be decided by respective faculty. Schedule and date will be announced by the examination branch of respective institute.
3. Sendup exam will be taken for theory after completion of the curriculum .It will be from whole syllabus. Table of specification for sendup exam is similar to annual exam. Schedule for exam will be announced by the examination branch of respective institute
4. Marks of all the exams will contribute to internal assessment
5. Schedule for annual examination (Theory and Practical) will be announced by UHS. Practical examination will be conducted by the department itself while theory part will be conducted by the Examination Department,UHS.

What is a Study Guide?

It is an aid to:

- Inform students how student learning program of the semester wise module has been organized
- Help students organize and manage their studies throughout the module
- Guide students on assessment methods, rules and regulations
- Communicates information on organization and management of the module. This will help the student to contact the right person in case of any difficulty.
- Defines the objectives which are expected to be achieved at the end of the module.
- Identifies the learning strategies such as lectures, small group teaching, clinical skills, demonstration, tutorial and case-based learning that will be implemented to achieve the module objectives
- Provides a list of learning resources such as books, computer assisted learning programs, web-links, journals, for students to consult in order to maximize their learning.
- Highlights information on the contribution of continuous and semester examinations on the student's overall performance.
- Includes information in the assessment methods that will be held to determine every student's achievement of objectives.
- Focuses on information pertaining to examination policy, rules and regulations.

Curriculum:

Comprises of system-based modules such as statistical application in health and disease, infections and Behavioral Modification and Environment and Health Planning. Which links basic science knowledge to clinical problems. Students will be able to have better understanding of basic sciences when they repeatedly learn in relation to clinical examples.

Learning Methodologies:

The following teaching / learning methods are used to promote better understanding:

- Interactive Lectures
- Hospital / Clinic visits
- Small group discussion

- Problem based learning
- Role plays
- Presentations
- Quizzes
- Tutorials
- Self-directed study

Interactive lectures:

In large group, the lecturer introduces a topic or common clinical conditions and explains the underlying phenomena through questions, pictures, videos of patients' interviews, exercises, etc. students are actively involved in the learning process.

Hospital visits:

In small groups, students observe patients with signs and symptoms in hospital or clinical settings. This helps students to relate knowledge of basic and clinical sciences of the relevant module.

Small Group Discussion (SGD):

This format helps students to clarify concepts acquire skills or attitudes. Sessions are structured around major Public Health Issues and topics. Students exchange opinions and apply knowledge gained from lectures, tutorials and self-study. The facilitator role is to ask probing questions, summarize, or rephrase to help clarify concepts.

Case Based Learning:

A small group discussion format where learning is focused around a series of questions based on a community medicine/Public Health Preventive and Control measures. Students' discuss and answer the questions applying relevant knowledge gained in lectures, tutorials, field visits and basic health sciences during the module.

Problem Based Learning:

Problem-based learning is a student-centered pedagogy in which students learn about a subject through the experience of solving an open-ended problem found in trigger material.

Tutorials:

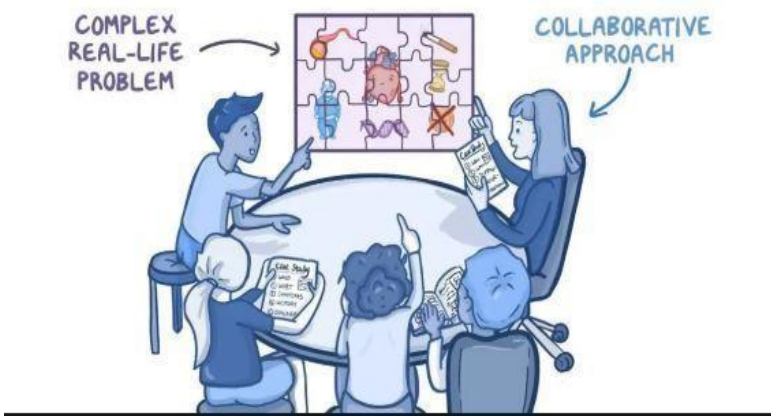
Groups around 25 to 30 students are given a topic for self-study and discussion with the supervisor.

TRADITIONAL TEACHING / LEARNING :



PROBLEM BASED LEARNING :

PROBLEM- BASED LEARNING (PBL)

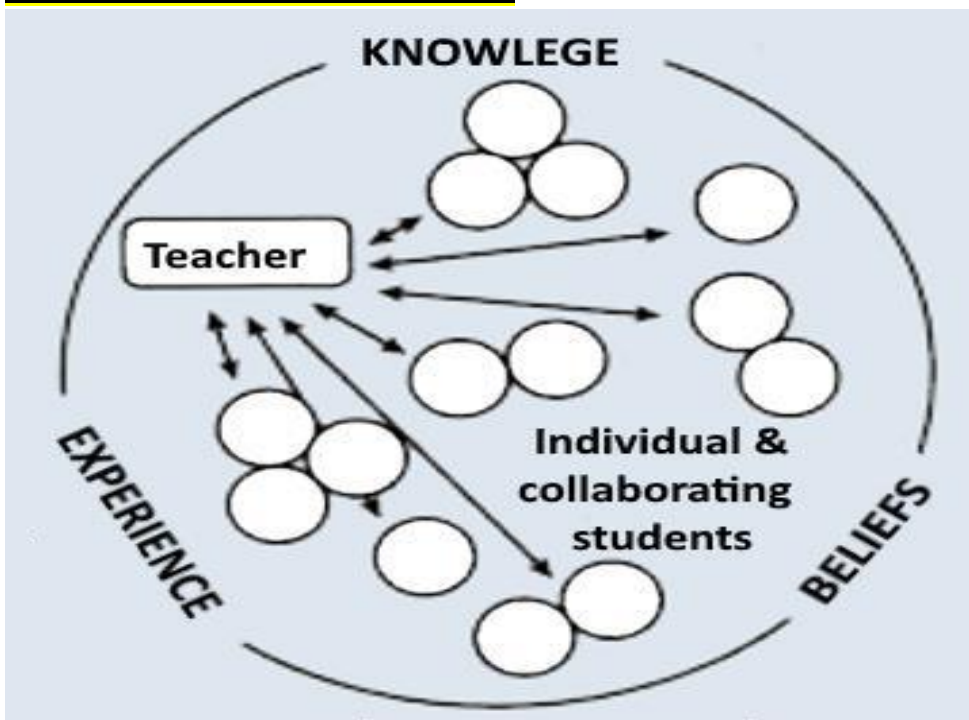


Teacher centered vs Student centered approach:

TEACHER CENTERED APPROACH:



STUDENT CENTERED APPROACH:



Weekly Schedule / Time Table:

REVISED TIME TABLE FOR THIRD YEAR MBBS CLASS FOR THE SESSION 2022-2023

QUAID-E-AZAM MEDICAL COLLEGE BAHAWALPUR

WITH EFFECT FROM 07-03-2023.

DAYS	8:00 AM to 8:50 AM	8:50 AM to 09:40 AM	09:40 AM to 10:30 AM	10:30 to 11:00 AM	11:00 AM to 01:00 PM	01:00 PM to 2:00 PM		
MONDAY	Forensic Medicine	Pharmacology	Pathology	Recess	Clinical	Pharmacology Practical-A	Pathology Practical-B	Forensic Medicine Practical-C
TUESDAY	Pathology	Forensic Medicine	Pharmacology		Clinical	Pharmacology Practical-B	Pathology Practical-C	Forensic Medicine Practical-A
WEDNESDAY	Pharmacology	Forensic Medicine	Pathology		Clinical	Pharmacology Practical-C	Pathology Practical-A	Forensic Medicine Practical-B
THURSDAY	CPC	Pharmacology	Behavioral Sciences		Clinical	Pharmacology Practical-A	Pathology Practical-B	Forensic Medicine Practical-C
FRIDAY	Pharmacology	Pathology	09:40 AM to 10:00 AM Recess	10:00 AM to 12:00 NOON			Friday	
				Pharmacology Practical-B	Pathology Practical-C	Forensic Medicine Practical-A		
SATURDAY	Pathology	Medicine	09:40 AM to 10:30 AM Surgery	10:30 to 11:00 AM Recess	11:00 to 11:50 AM Pharmacology	11:50 to 01:00 PM		01:00 to 02:00 PM DME/Principal's Lecture/Self Study
					Pharmacology Practical-C	Pathology Practical-A	Forensic Medicine Practical-B	

NOTE: There will be a joint CPC for 3rd, 4th & Final Year.

75% attendance is mandatory in lectures, Practicals & Ward attendance.

No scholarship or other benefits would be permissible without 75% attendance.

25% margin in attendance is only reserved for sick leaves or

Genuine problems with proper application and approval by the Director Students Affairs.

No. 6681-86 /QAMC/SS/23 Dated: 08.03.2023.

1. The Director Medical Education (DME) Department QAMC, Bahawalpur.
2. The Head of Basic & Clinical Departments (Concerned) QAMC, Bahawalpur.
3. College & Hostel Notice Boards, QAMC, Bahawalpur.

PRINCIPAL
Quaid-e-Azam Medical College
Bahawalpur

FORENSIC MEDICINE

S No	Theme/Block	Learning Outcomes By the end of this term, the students will be able to:	Course Content	% Weight age
1	Introduction to Forensic Medical Sciences	Describe the role of Forensic Medicine / Sciences in Crime detection, especially in crimes involving human life & body in national as well as international context.	Role of Forensic Medicine / Sciences in Crime detection, especially in crimes involving human life & body	03
2	Thanatology	<ul style="list-style-type: none"> Identify the causes, manner, mode, mechanisms, medicolegal aspects and indicators of death. Correlate between the physicochemical changes occurring in various body tissues after death under different environmental conditions to the medico-legal aspects of sudden and unexpected deaths. 	<ul style="list-style-type: none"> Scientific concepts regarding death, medico-legal aspect of Brain death, Indicators of Death, medico-legal aspects of Sudden and unexpected deaths, causes, manner, mode and mechanisms of death. Physicochemical changes subsequent to death occurring in various body tissues and organs under various environmental conditions. To write a Certification of death according to WHO guidelines Autopsy: Types, objectives, rules, and techniques and describe procedure for post-mortem; Methods for Assessment of Fatal period and postmortem interval. Post-mortem artefacts. Risks and Hazards of autopsy, and Autopsy Protocol. Procedure for selection and reservation, labelling and dispatch of Biological and nonBiological materials for laboratory examination; and collect relevant samples. Exhumation procedures, and its value and limitations 	27

3	Traumatology-I	<ul style="list-style-type: none"> • Correlate the mechanisms of wound production to their medico-legal aspects. • Identify different ammunitions • Appraise the nomenclature, wound Ballistics and medico-legal aspects of mechanical injuries • List and debate on the laws in relation to causing Bodily harm, Wounding and Homicide 	<p>□ <u>Mechanical Injuries:</u></p> <ul style="list-style-type: none"> ○ Mechanisms of wound production, classification of wounds, wounds produced by conventional weapons and their medico-legal aspects. ○ Firearms, Ammunition, Classification, Nomenclature, 	50
		<ul style="list-style-type: none"> • Distinguish between ante-mortem and post-mortem wounds • Diagnose the manner of death (suicidal, homicidal and accidental) • Classify wounds • Relate the mechanisms of wound production to their medico-legal aspects. • Classify firearm injuries. • Identify different ammunitions • Appraise the nomenclature, wound Ballistics and medico-legal aspects of mechanical injuries • List and debate on the laws in relation to causing Bodily harm, Wounding and Homicide. • Distinguish between ante-mortem and post-mortem wounds. • Diagnose the manner of death (suicidal, homicidal and accidental) 	<p>wound Ballistics and medico-legal aspects. ○ Medico-Legal Considerations:</p> <ul style="list-style-type: none"> ▪ Suicide, homicide and accident. 	

4	Personal Identity	<ul style="list-style-type: none"> Distinguish between living and dead, decomposed and mutilated from burnt bodies, skeletal and fragmentary remains by using appropriate parameters of personal identity. <ul style="list-style-type: none"> □ Use different techniques (Dentistry: Radiology, Neutron Activation Analysis etc.) and objective methods of (Osteometry, Dactyloscopy, DNA Technique, Super imposition photography etc.). Determine the age, sex and race of an individual by various methods with their medicolegal aspects. Critique on methods to trace the evidence, Lockard's Principle of exchange and its medicolegal significance. 	<ul style="list-style-type: none"> □ Parameters of personal identity, methods of identifying living, dead, decomposed, mutilated and burnt bodies, and skeletal and fragmentary remains, □ Special techniques (Dentistry: Radiology, Neutron Activation Analysis etc.), and objective methods of identification (Osteometry, Dactyloscopy, DNA Technique, Super imposition photography etc.). □ Methods of determination of age, sex and race by various methods with their medico-legal aspects. □ Methods to trace evidence, Locard's Principle of exchange and its medico-legal significance 	10
5	Biological Specimens	<ul style="list-style-type: none"> Appraise the forensic importance of Biological specimens (Blood, Semen, Salvia, Vomitus, Breath, Urine, Hair). Collects, preserve, dispatch various human body specimens 	<ul style="list-style-type: none"> Forensic importance of Biological specimens (Blood, Semen, Salvia, Vomitus, Breath, Urine, Hair). Method of their collection, preservation, dispatch and the common laboratory tests 	10
Total				100
	Assessment	assessment is to be taken by the concerned institute itself. Assessment tools: MCQs & SAQs/SEQs		

FORENSIC MEDICINE -

THEME/LEARNING OUTCOMES	%
At the end, student shall be able to	
Perform Autopsy& Medicolegal Examinations	10
Examine different biological specimens in forensic context.	10
Perform the procedure of preservation, dispatch of Biological and other evidentiary material	10
Write Death Certificate according to WHO guidelines	10
Perform Exhumation procedure	10
Identify the importance of finger prints in personal identity	10
Distinguish various firearm injuries	10
Identification of Blood, Semen, Saliva etc.	10
Examine an injured person, certify nature, manner of cause, causative agent and dating of wounds. Link Sequelae of trauma to its original cause and search for the relationship of sequelae to pre-existing disease.	10
Perform common lab tests on different body specimens	10
Total	100%

S No	Theme/Block	Learning Outcomes By the end of this term, the students will be able to:	Course Content	% Weightage
1	Traumatology-II	<ul style="list-style-type: none"> Differentiate among the various possible etiologies of Regional Injuries, of Head (Scalp, Skull, Brain) and Face, Vertebral column and its contents, Neck, Chest, Abdomen, Limbs, Bones and Joints and Special trauma (Transportation injuries, Police torture, and Deaths in Custody) Compare and contrast Heat, Cold, Electrical injuries with emphasis on their medicolegal aspects. Recognize signs of violent death, mechanical, chemical and environmental asphyxia death and their medico legal implications. Interpret injuries caused by blast 	<ul style="list-style-type: none"> Regional Injuries, of Head (Scalp, Skull, Brain) and Face, Vertebral column and its contents, Neck, Chest, Abdomen, Limbs, Bones and Joints and Special trauma such as: Transportation injuries, Police torture, and Deaths in Custody. And Should be able to determine the medicolegal aspects of Heat, Cold, Electrical injuries. Blast injuries. Recognition and interpretation of injuries caused by blast 	10
2	Violent Deaths Due to Asphyxia	Define, Classify and detect the anatomical, physiological, biochemical and pathological signs of violent death, mechanical, chemical and environmental asphyxia death and their medicolegal implications.	Define, Classify, causes of; and detect the Anatomical, Physiological, Biochemical and Pathological signs of violent death; and of Mechanical, chemical and environmental asphyxia death and their medicolegal implications	10
3	Sexual Offences /Reproduction	<ul style="list-style-type: none"> Assess the sexual offences and relate it to relevant Sections of Law (Zina and Hudood Ordinance) Differentiate between natural and unnatural sexual offences Address the causes of common sexual perversions Distinguish between Impotence, Virginity, Pregnancy and criminal acts during delivery(their medico- 	<ul style="list-style-type: none"> Sexual Offences and Relevant Sections of Law (Zina and Hudood Ordinance) <ul style="list-style-type: none"> Natural and unnatural sexual offences Medical examination of victim and assailant, collection of specific specimens. Common sexual perversions and their cause. 	30

		<p>legal aspects, examination procedure and reporting)</p> <ul style="list-style-type: none"> • Appraise the procedure of performing clinical I examination of victim and assailant in case of sexual offense, collect specific specimens and write a required certification. • Appraise the relevant sections of law, Medico-legal aspects applicable to miscarriage; and be able to. • Crime Against New-Born, Infants and Child. • identify infanticide and criminal and non-accidental violence or abuse to a newborn, infant or child. 	<ul style="list-style-type: none"> ○ approach to Impotence, determination of Virginity, Pregnancy and criminal processes during delivery, their medico-legal aspects, examination procedure and reporting. ○ Miscarriage: ○ Crime Against New-Born, Infants and Child. <p>□ Infanticide and criminal and non-accidental violence or abuse to a newborn, infant or child</p>	
4	General Toxicology	<ul style="list-style-type: none"> • Relate the cases of toxicology to its related laws • Manage toxicological cases in acute and chronic exposure • Interpret acute and chronic cases of poisoning in living and dead 	<ul style="list-style-type: none"> • Scope of forensic aspects of toxicology. • Common Toxicants in our environments and their abuse 	10
5	Poisons	<ul style="list-style-type: none"> • Differentiate between the different sources, mechanism of action, sign and symptoms and management of poisoning • Analyze the autopsy findings of a case with poisoning with emphasis on its medicolegal aspects 	<ul style="list-style-type: none"> • Sources of poisons • Mechanism of action of poisons • Sign and symptoms of poisoning • Management of poisoning • Autopsy findings of death due to poisoning Medicolegal aspects 	40
Total				100
	Assessment	<p>assessment is to be taken by the concerned institute itself. Assessment tools: MCQs & SAQs/SEQs</p>		

FORENSIC MEDICINE -

At the end, student shall be able to

THEME/LEARNING OUTCOMES	%
Perform Autopsy& Medicolegal Examinations	20
Perform medico-legal Examination of injured	30
Preserve and dispatch biological and other evidentiary material	10
Examine mother and aborted material; and send aborted material in proper preservative for examination	40
Total	100%

S No	Theme/Block	Learning Outcomes By the end this term the students will be able to:	Course Content	% Weightage
1	Specific Poisons	<p>Study of Poisons/drugs prevailing in our society along with medicolegal aspects is recommended. Emphasis must be given to the following poisons/drugs:</p> <ul style="list-style-type: none"> • Alcohol • Opiates, Opioids and other narcotics • Salicylates and paracetamol • Hypnotics and Sedatives • Stimulants (Cocaine), cannabis • Poisonous Plants (Aconite, Belladonna, Hyoscyamus, Stramonium, Digitalis, Ergot, Mushrooms, Nux Vomica, Oleander, Tobacco) • Venomous insects (Snakes) □ Inorganic elements, Antimony, Arsenic, lead, Mercury, Phosphorus • Volatile Poisons and corrosives (Carbon monoxide, Hydro carbons, Cyanides, Sulphuric Acid, Oxalic Acid, Carbolic Acid and Alkalis) • Pesticides, Herbicides and Insecticides and others 	<p>Study of following poisons/drugs:</p> <ul style="list-style-type: none"> • Alcohol • Opiates, Opioids and other narcotics • Salicylates and paracetamol • Hypnotics and Sedatives • Stimulants (Cocaine), cannabis • Poisonous Plants (Aconite, Belladonna, Hyoscyamus, Stramonium, Digitalis, Ergot, Mushrooms, Nux Vomica, Oleander, Tobacco) • Venomous insects (Snakes) □ Inorganic elements, Antimony, Arsenic, lead, Mercury, Phosphorus • Volatile Poisons and corrosives (Carbon monoxide, Hydro carbons, Cyanides, Sulphuric Acid, Oxalic Acid, Carbolic Acid and Alkalis) • Pesticides, Herbicides and Insecticides and others 	40
2	Forensic Psychiatry	<ul style="list-style-type: none"> • Distinguish between true and feigned insanity. • Advise on procedure of restraint of the mentally ill. • List limitations to civil and criminal responsibilities of mentally ill. 	<ul style="list-style-type: none"> • True and feigned insanity • Procedure of restraint of the mentally ill • Limitations to civil and criminal responsibilities of mentally ill 	25

3	Medical Ethics, consent & negligence	Apply ethical principles of medicine as physicians/ in their clinical clerkships according to national as well as international code of ethics	<ul style="list-style-type: none"> • Powers and jurisdiction of courts • procedures for inquest, and legal Procedures. • Important Legal terms • Application of relevant Legal sections of the penal code • Role of a medical doctor in the medico-legal system • Medical evidence in courts. • Document information to be prepared by a medical doctor for legal procedures. <ul style="list-style-type: none"> ○ Procedure of Court attendance and recording of evidence 	10
4	Law in relation to medical man	<ul style="list-style-type: none"> • Identify the principles of inter professional and patient interaction in clinical practice • Correlate the medical ethics while examining patient to medical negligence and professional misconduct • Justify the guarding of professional secrets and privileged communication. • Debate on legal and ethical aspect of organ transplantation • Employ the moral and ethical implications of medical procedures (Artificial insemination, Therapeutic abortions, Euthanasia, Biomedicalresearch) in clinical practice 	Law in relation to medical man	25
Total				100
	Assessment	sendup assessment is to be taken by the concerned institute itself. Proposed Assessment tools: MCQs & SAQs/SEQs		

FORENSIC MEDICINE -

THEME	%
Autopsies	20
Medico-legal Examination of injured	40
Visits to Court, Forensic Science Laboratory, Psychiatric unit or Jail, Site during conduction of exhumation	20
Visual, olfactory and tactile identification of common poisons found in communities and country	20
Total	100%

TEACHING PROGRAM

Lecture Topics	
FORENSIC MEDICINE & TOXICOLOGY	
Sr. No	Topic: Introduction & Gen Toxicology
1	Introduction to Forensic Medicine
2	Role of Forensic Science in Crime Detection
3	Introduction to General Toxicology & Classification of Poisons
4	General & Medicolegal Aspects of Poisons
5	Routes of Administration, Elimination, Metabolism of Poison, Factors Modifying the Effect of Poison
6	Diagnosis of poisoning in living and dead
7	Duties of RMP & General Management of poisoning
8	Medicolegal management of poisoning case & Scandinavian method, Toxidrome, Coma Cocktail
9	Current trends in suicidal poisoning + Drug abuse & LSD

10	Sheesha, Glue sniffing, Date rape drugs
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Topic: Autopsy and Exhumation	
11	Introduction, Objectives, Rules and Techniques of Autopsy
12	Autopsy Protocol - I
13	Autopsy Protocol - II
14	Autopsy on Decomposed, Mutilated bodies & Fragmentary remains
15	Exhumation procedure and Scope & Limitations
16	Negative autopsy , Hazards of autopsy
17	Autopsy Room Essentials, Artifacts & Embalming
Sr. No	Topic: Thanatology
1	Definition, Concept, Diagnosis of Death, Norms, Classification & Brain Death
2	Medicolegal aspects of sudden and unexpected deaths, Death Certificate, WHO criteria of death
3	Changes in body after death (Immediate + Early)
4	Algor Mortis
5	Postmortem Lividity
6	Rigor Mortis
7	Late changes after death + Very Late Changes after death
8	Determination of Postmortem Interval (Rate & Concurrent methods)

	Topic: Sexual Offences & Reproduction
9	Classification & Laws
10	Medicolegal Examination of Victim/Assailant & Collection of sample
11	Criminal Abortion
12	Crime against newborn
13	Impotence, virginity, pregnancy
14	Sexual perversions, Battered Baby Syndrome (Caffey's syndrome)

Sr. No	Topic: Traumatology
1	Mechanical Injuries (Definition, Classification, Mechanism)
2	Factors modifying appearance of wound
3	Blunt Trauma (Abrasion & Contusion)
4	Laceration
5	Sharp edged weapons injury (Stab & Incised)
6	Fabricated, Hesitatorial, Defense injuries & Confessional torture
7	Medicolegal aspects of Mechanical Injuries
8	Firearm - I
9	Firearm - II

10	RTA - I
11	RTA - II + Blast Injuries
12	Regional Injuries (Head, Chest & Abdomen)
13	Forensic psychiatry
14	Sedatives & Hypnotics
15	Somniferous poisons
16	Inebriants (Ethyl + Methyl Alcohol)
17	Deliriants (Cannabis, Dhatura, Cocaine)
18	Snake poisons
19	Insecticides
20	Asphyxiants
Sr. No	Topic: Asphyxia
1	Violent Asphyxial Deaths (Classification & General Aspect)
2	Hanging
3	Strangulation
4	Suffocation & Positional Asphyxia
5	Manual Strangulation, Burking, Bansdola
6	Traumatic Asphyxia & Autoerotic Asphyxia
7	Drowning - I
8	Drowning - II
9	Violence on women

Sr. No	Topic:
1	Corrosives - I
2	Corrosives - II
3	Irritants (Non-metallic Phosphorus)
4	Irritants (Metallic Arsenic)
5	Lead & Copper
6	Mercury & Thallium
7	Effect of Heat and Cold
8	Death due to Electrocution

9	Lightening and Starvation
10	Medicolegal concepts of law (Court of law)
11	Legal proceeding
12	Legal Aspects of Medicine (PMC & other Ordinances)
13	Professional Misconduct
14	Legal aspects of Medicine (Consent & Med Ethics)
15	Medical Negligence
16	Medical Evidence, Professional Secrecy & Privileged Communication

17	Medical aspects of Law (Classification of Hurt & Qatl & Hudood Ordinance)
18	Medicolegal aspects of Insanity
19	Injured Person Act & Organ Transplantation Act
20	Women Protection Act & Harassment Act
21	Narcotics Act & Mental Health Ordinance
Sr. No	Topic: Personal Identity & Trace Evidence
1	Identification of living and dead (Methods & Parameters)
2	Determination of Age + Medicolegal Importance of Age
3	Determination of Gender & it's Medicolegal importance
4	Special Techniques in Identification (Anthropometry)
5	Trace Evidence
December 2023 Send up Examination	

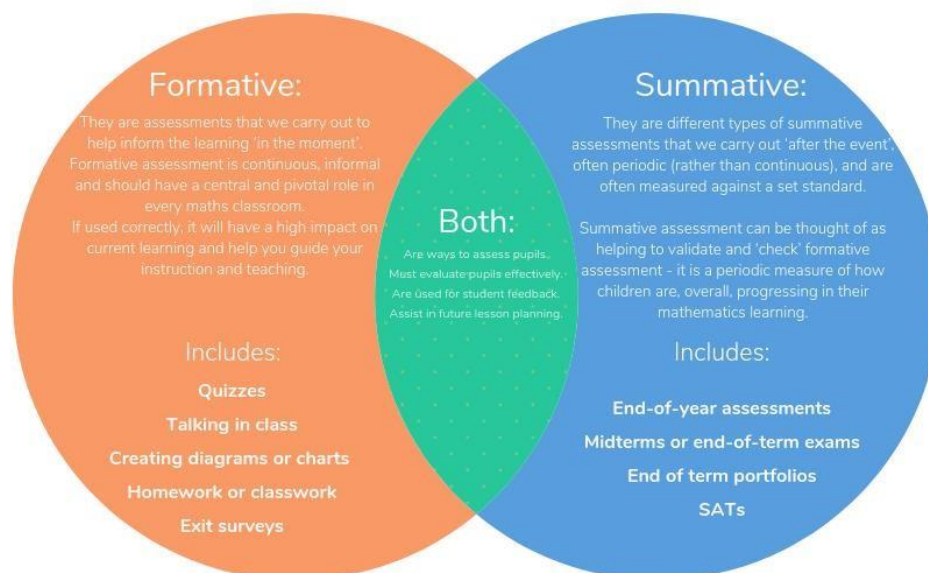
LEARNING METHODOLOGY:

- Theory in the form of Lectures, using Audio-Visual aids including Multimedia (Tv, Projectors)
- Practical Training in the form of Lab. Drill, PBL, Interactive Tutorials, Presentations, Role Plays given to students .
- Periodical Evaluations (Provide feedback and Assess Adequacy of learning)

Periodical Evaluations & Assessment:

1) FORMATIVE ASSESMENT

2) SUMMATIVE ASSESMENT



**"When the cook tastes the soup,
that's formative assessment; when
the customer tastes the soup,
that's summative assessment."**

Paul Black



FORMATIVE ASSESMENT TOOLS USED :

Practice in form of SEQ, MCQ Papers , Tutorials, group vivas with feedback to improve , quizzes ,poster presentations , role plays, field visits , puzzles, feedbacks , interactive sessions, OSPE practices.

SUMMATIVE ASSESMENT TOOLS USED :

Term exams , Sendup Exams , Annual Exams with Vivas

Practical work includes:

1. FORENSIC MEDICINE

- Viewing of Medico Legal Autopsies
- Medicolegal Examinations of injured
- Age Certification
- Examination of Biological Materials (Blood, Semen, Saliva, Hair, etc.)
- Study of Bones for determination of Age, Sex, Race, Stature, Time and Medico legal aspects
- Study of Radiographs for determination of Age, Sex, Foreign bodies, trauma, deformities etc.

2. TOXICOLOGY

- Identification of Poisons
- Identification of Instruments/Equipment used in analytical techniques

LIST OF BOOKS FORENSIC MEDICINE:

Sr. No.	Title of Book	Author
1	Forensic Emergency Medicine	Jonathan S
2	Analytical and Practical Aspects of Drug Testing in Hair	Kintz, Pascal
3	Forensic Science the Basics	Jay A. Siegel
4	Textbook of Forensic Medicine and Toxicology	Krishan Vij
5	Concise Textbook of Forensic Medicine and Toxicology	R.K. Sharma
6	Practical Forensic Medicine	Nagesh Kumar
7	Ballistic Trauma: A Practical Guide	Peter F. Mahoney
8	Handbook of Forensic Pathology	Vincent J.M DeMaio
9	Encyclopedia of Forensic Science	Suzanne bell
10	Principals of Forensic Medicine	Apurba Nandy
11	Parikh's Textbook of Medical Jurisprudence, Forensic Medicine...	Parikh, C. K
12	Forensic Entomology and Introduction	Dorothy
13	Gold frank's Toxicology Emergencies	Elomanbaum
14	Forensic DNA Analysis	J Thomas
15	Comprehensive Medical Toxicology	Pillay
16	Forensic Science it's Application in Crime Investigation	Bapuly
17	Textbook of Forensic Medicine and Toxicology	Pillay

18	Color Atlas of Forensic Pathology	Jay Dix
19	Forensic DNA Typing Biology Technology	John M Butler
20	Forensic Science the Basic	Jay A Siegel
21	Gold frank's Manual of Toxicology	Robert S Hoffman
22	Gunshot's Wounds Practical Aspects of Fireman	Vincent
23	Knight's Forensic Pathology	Peeka Sukho
24	Smart Study Series: Forensic Medicine And Toxicology	Aggararwal, Gaurav
25	Smart Study Series: Forensic Medicine & Toxicology	Aggarwal, Gaurav
26	Textbook of Forensic Medicine and Toxicology	Vij, Krishan
27	Simpson's Forensic Medicine	Shepherd, Richard
28	Textbook of Forensic Medicine & Toxicology	Dikhit P.C
29	Forensic Pathology	DeMaio, Vincent J
30	Practical Bomb Scene Investigation	Thurman, James T
31	The Virtopsy Approach	Thali, Michael J
32	Forensic DNA Analysis	McClintock, Thomas J
33	Principles and Practice of Forensic Medicine	Awan, Nasib R.
34	Textbook of Forensic Medicine and Toxicology	Vij, Krishan
35	Textbook of Forensic Medicine and Toxicology	Dikshit, P C
36	Atlas of Forensic Pathology	Shetty, B Suresh Kumar.
37	Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology	Subrahmanyam, BV
38	Forensic Medicine & Toxicology	Aggarwal, Gaurav.
39	Textbook of Forensic Medicine and Toxicology	Vij, Krishan.
40	Child Forensic Psychology	Holliday, Robyn E.