

# AJK Medical College, Muzaffarabad



## Legal Medicine Module

(LM- 0207)

3<sup>rd</sup> Year MBBS



Duration: 3 Weeks

Starting on:

**DEPARTMENT OF MEDICAL EDUCATION**

# Module Development Team

| #  | Name                      | Role            |
|----|---------------------------|-----------------|
| 1  | Prof. Dr. Jamshed Ali     | Patron-in-Chief |
| 2  | Prof. Muhammad Humayun    | Module Planner  |
| 3  | Dr. Inayat-ur-Rehman      | Co-ordinator    |
| 4  | Brig (R) Prof. Ahmed Khan | Member          |
| 5  | Dr. Ziyad Afzal Kayani    | Member          |
| 6  | Dr. Wafa                  | Member          |
| 7  | Dr. Farzana Sabir         | Member          |
| 8  | Dr. Bashir Trinbu         | Member          |
| 9  | Dr. Shafaq Hanif          | Member          |
| 10 | Dr. Naseer Ahmed Sheikh   | Member          |

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## **Rationale**

There are 4 methods of Judicial investigation in world. Namely:

- (i) Police inquest system (ii) Coroner Inquest System  
(iii) Magistrate inquest system (iv) Medical examiner System

In most of the Asian countries including Pakistan & India Police inquest system of investigation is prevalent. While in Europe & America coroner and Magistrate inquest system is prevalent. However medical examiner system is practiced in some states of America.

In Pakistan Police inquest system is in practice. In this system Post-mortem is conducted on the request of police in all suspicious & Homicidal & some of the Accidental death. While exhumation is conducted by the order of session court, high court or District Magistrate. Similarly In all the Homicidal & Accidental injuries Medico-legal reports are prepared by Medical officer on the request of police. Magistrate inquest system is also practiced in Pakistan in special cases as follows:-

- (i) Admission of a mentally ill person in psychiatric Hospital or a psychiatric Nursing home under certain provision of the Mental Health Act.
- (ii) Death of a person in police custody or during police interrogation
- (iii) Death of a convict in Jail.
- (iv) Death as a result of police shooting / killing
- (v) Exhumation cases
- (vi) Any special inquiry order by provincial / Federal agencies / Authorities.

In our legal set up a medical officer has to perform all sorts of medico-legal examinations, carryout medico-legal investigations, prepare medico-legal reports and issuing the relevant reports and certificates. He infact, has to do a lot of medico-legal work. As in Pakistan well equipped Forensic Medicine departments are very rare for example in whole KPK province there is only one forensic department which is attached to Khabar Medical College forensic department. Similarly in whole Punjab province there is one fully equipped forensic medicine center attached to Mayo Hospital / King Edward Medical college in Health department and a latest forensic science agency under home department also a center of excellence for molecular biology a project of federal Government. It is therefore, mandatory for every medical graduate with basic medical qualification or post graduate qualification that he / she must have basic knowledge of medico-legal system and medico-legal work. Otherwise things may go wrong when he finds himself lacking in skill as well as in knowledge to do this sort of work and at the same time when he undertakes this work unwillingly or halfheartedly. This happens when he is inadequate in his training in the subject of Forensic Medicine.

The situation thus demands that the forensic medicine is viewed in its proper perspective and required share is given to its training. The purpose of teaching of legal Medicine assigned in the module is to give basic knowledge to the students to become aware of law which they will have to observe while practicing in this noble profession in their future and also to learn how to perform legal duties to help the law whenever required or asked for.

It is imperative for a medical man to know laws that are relevant to his profession in the face of increase in crimes of murder, sexual offences, transportation and industrial accidents and increasing awareness of public about their rights, compensations claims against medical mal practice or negligence.

## **Themes / Core Conten**

1. Doctor in Witness Box. (Pakistan's legal system)
2. Laws in relation to medical man.
3. Identification of living and dead. (Personal identity)
4. Medical consent & its types.
5. Mystery of death and Doctor.
6. A red stain on the shirt of an accused of murder.
  - i. (Forensic Science and crime detection)
7. Medico-legal Aspects of Sexual offences and STD
8. Forensic Science in crime detection
9. Crime and insanity.
10. Medico-legal Aspects of trauma
11. *Qisas and Diyat* Act in relation to English Law

## **Table of Specifications**

| S.No | Theme   | Weight age |
|------|---|------------|
| 1    | Doctor in Witness Box. (Pakistan's legal system)  | 5%         |
| 2    | Laws in relation to medical man   | 5%         |
| 3    | Identification of living and dead. (Personal identity)                                      | 15%        |
| 4    | Medical consent & its types   | 5%         |
| 5    | Mystery of death and Doctor   | 20%        |
| 6    | A red stain on the shirt of an accused of murder.<br>(Forensic Science and crime detection) | 10%        |
| 7    | Medico-legal Aspects of Sexual offences and STD   | 10%        |
| 8    | Forensic Science in crime detection   | 5%         |
| 9    | Crime and insanity  | 5%         |
| 10   | Medico-legal Aspects of trauma  | 10%        |
| 11   | Qisas and Diyat Act in relation to English Law  | 10%        |

## **Themes & Learning Outcomes**

### **1- Doctor in Witness Box. (Pakistan's legal system)**

*Students should be able to describe,*

1. The powers and jurisdiction of courts, procedures of inquest, and legal Procedures.
2. Define: Important Legal terms,
3. Debate the application of relevant Legal sections of the penal code,
4. Define the role of a medical doctor in medico-legal system.
5. Medical evidence in courts.
6. Dying declaration.
7. Dying deposition.
8. Inquest and its types.
9. Document information to be prepared by a medical doctor for legal procedures
10. Describe procedure of court attendance and recording of evidence.

### **2- Laws in relation to medical man**

1. Meanings of medical ethics
2. Code of Medical Ethics.
3. Duties of doctor in general.
4. Duties of doctor to the sick.
5. Infamous conduct.

6. How to act according to and within the framework of Privileges and obligations of registered medical practitioner.
7. Maintain Doctor-patient relationship in the context of the highest ethical standards.
8. Understand and refrain from any temptations to professional misconduct.
9. Guard Professional secrets and privileged communication.
10. Maintain highest ethical principles in medical examination and when obtaining consent.
11. Define what constitutes medical negligence.
12. Doctrine of Res Ipsa Loquitur.
13. Develop and defend a personal moral view on Artificial insemination, Therapeutic abortions, Euthanasia, Biomedical research etc, in keeping with the norms of society and highest ethical principles.
14. What are the rules of donating organs?

### **3- Identification of living and dead. (Personal identity)**

1. Student should be able to describe Parameters of personal identity, methods of identifying living, dead, decomposed, mutilated and burnt bodies, and skeletal and fragmentary remains, using special techniques (Dentistry: Radiology, Neutron Activation Analysis etc.), and objective methods of identification (Osteometry, Dactyloscopy, D.N.A Technique, Super imposition photography etc.)
2. Methods of determination of age, sex and race by various methods with their medico-legal aspects.
3. At the end of this module student should be able to enlist the imaging modalities related to medicolegal cases, especially for determination of bone age, traumatology and childhood violence.

### **4- Medical consent & its types**

1. Meaning of consent
2. Informed consent
3. Implied consent
4. Blanket consent
5. Therapeutic privileges
6. Consent for physical examination
7. Minimum age for consent

### **5- Mystery of death and Doctor.**

*The student should be able to describe:*

1. 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.
2. Physicochemical changes subsequent to death occurring in various body tissues and organs under various environmental conditions
3. To write a certification of death according to W.H.O guidelines
4. To define asphyxial death, mechanism of asphyxial deaths and various types of asphyxia deaths.
5. Death due to drowning and its types.

### **6- A red stain on the shirt of an accused of murder.**

(Forensic Science and crime detection)

Medico legal importance of trace evidence, Locard's Principal of exchange.

Critically analyze the various test used for biological specimens/stains in tracing the murderers/sex offenders/criminals.

1. Preliminary tests for bloods stains
2. Confirmatory tests for blood stains
3. Immunological tests for biological stains.
  - a. Serology
  - b. Histopathology
  - c. Hematology
  - d. Microbiology
  - e. Toxicology
  - f. DNA
4. Describe the techniques of sample collection of following specimen in medicolegal autopsy for biochemical profiling and culturing.
 

|                   |        |          |          |
|-------------------|--------|----------|----------|
| a. Vitreous humor | b. CSF | c. Serum | d. Urine |
|-------------------|--------|----------|----------|

5. Discuss the importance and steps of sample collection in sudden unexpected death.
6. Give importance of histopathological examination in medico legal autopsies.
7. Antimicrobial Agents- Cell wall synthesis inhibitors.
8. Antimicrobial Agents- Protein synthesis inhibitors.
9. Antimicrobial Agents- Nucleic acid synthesis inhibitors.
10. Antiviral Agents.

#### **7- Medico-legal Aspects of Sexual offences and STD**

Students should be able to describe the approach to impotence, determination of Virginity, Pregnancy and criminal processes during delivery, their medico-legal aspects, examination procedure and reporting.

SEXUAL OFFENCES AND RELEVANT SECTIONS OF LAW  
(ZINA AND HUDOOD ORDINANCE)

Students should be able to differentiate between

Natural and unnatural sexual offences. And know how to perform a medical examination of victim and assailant, collect specific specimens and write a required certification.

Students should be able to list common sexual perversions and address their cause.

#### **8- Forensic Science in crime detection**

##### **1. MISCARRIAGE:**

Students should be able to determine the relevant sections of law. Medico-legal aspects applicable to miscarriage; and be able to examine mother and aborted material; and send aborted material in proper preservative for examination.

##### **2. CRIME AGAINST NEW BORN, INFANTS AND CHILD:**

Students should be able to identify infanticide and criminal and non-accidental violence or abuse to a newborn, infant or child.

#### **9- Crime and insanity.**

Students should be able to

- 1) Diagnose mental illness.
- 2) Distinguish between true and feigned insanity.
- 3) Advise on procedure of restraint of the mentally ill.
- 4) And list limitations to civil criminal responsibilities of mentally ill.

#### **10-Medico-legal Aspects of trauma**

Students must be able to describe:

- 1) Different types of trauma
- 2) Differentiate between incised wound and lacerated wound
- 3) To prepare different medico-legal reports
- 4) Differentiate between different types of firearm
- 5) Differentiate between wound caused by shotgun and gunshot
- 6) Differentiate between homicidal, Accidental and suicidal firearm injuries
- 7) Differentiate between homicidal, Accidental and suicidal incised wounds
- 8) Differentiate between homicidal, Accidental and suicidal blunt injuries
- 9) Differentiate between anti-mortem and post mortem injuries

#### **11. Qisas and Diyat Act in relation to English Law:-**

Student will be able to describe:

- 1) Qisas and Diyat act and English law
- 2) Differentiate between old English terminology and terminology of Qisas and Diyat ordinance
- 3) Differentiate between shujja and Jurah
- 4) Qattl-e-Amad and Qattl-e-Khatta
- 5) Jurh Jaiffah and Ghair Jaiffah
- 6) Different types of Jurh Ghair Jaiffah
- 7) Different types of Shujjah
- 8) Punishment for the above mentioned injuries
- 9) Certification of above mentioned injuries

**PBL-1**

**PBL-2**

# AJK Medical College, Muzaffarabad

## Schedule for Legal Medicine Module - (3<sup>rd</sup> Year)

Week - 1

| DATE→           |   |   |  |   |  |  |
|-----------------|---|---|--|---|--|--|
| TIME↓           | MONDAY  | TUESDAY   | WEDNESDAY  | THURSDAY  | FRIDAY   |  |
| 8:00am-09:00am  | <u>LGIS</u><br>Legal System of Pakistan<br><br><u>Prof. Humayun</u>     | <u>LGIS</u><br>Power of Courts & sentences<br><br><u>Prof. Humayun</u>                                | <u>LGIS</u><br><br>Law in relation to Medical Man consent & its type<br><br><u>Dr. Naseer Sheikh</u> | <u>LGIS</u><br>Code of Medical Ethics & Ethics of medical practice<br><br><u>Prof. Jamshed ALi or Prof. Humayun</u> | <u>LGIS</u><br>Pathogenesis of STDs<br><br><u>Dr. Munir</u>  |  |
| 9:00am-10:00am  | CLINICAL ROTATION   | <u>LGIS</u><br>STD and its prevention<br><br><u>Dr. Murtaza</u>                                       | <u>Dr. Naseer Sheikh</u>   | CLINICAL ROTATION   | <u>LGIS</u><br>Personal Identity<br><br><u>Prof. Humayun</u> |  |
| 10:00-10:30 AM  |   | <u>TEA BREAK 10:00 – 10:30 AM</u>   |  |   |  |  |
| 10:30am-12:30am |   | <u>LGIS</u><br>Professional Negligence<br>Professional secrecy<br><br><u>Dr. Naseer Sheikh</u>        | <u>LGIS</u><br>Professional Misconduct<br>Duties of Doctor<br><br><u>Dr. Naseer Sheikh</u>           |   | <u>LGIS</u><br>Personal Identity<br><br><u>Prof. Humayun</u> |  |
| 12:30-1:30pm    |   |   |  |   |  |  |
| 1:30 – 2:00 PM  | LUNCH BREAK 1:30 – 2:00 PM  |   |  |   |  |  |
| 2:00pm-3:00pm   | <u>LGIS</u><br>Legal System of Pakistan<br><br><u>Prof. Dr. Humayun</u> | <u>LGIS</u><br>Evidence<br>Dying declaration & Evidence related procedure<br><br><u>Prof. Humayun</u> | <u>LGIS</u><br>Types of witnesses system of investigation<br><br><u>Prof. Humayun</u>                | <u>LGIS</u><br>Personal Identity<br><br><u>Prof. Humayun</u>  | SGD<br><br>Forensic Medicine                                 |  |
| 3:00pm-4:00pm   | <u>LGIS</u><br>Legal System of Pakistan<br><br><u>Prof. Dr. Humayun</u> | <u>LGIS</u><br>Forensic Lab analysis of a blood stain<br><br><u>Dr. Malik Mehmood</u>                 | <u>LGIS</u><br>Pathogenesis of Asphyxia<br><br><u>Dr. Saroosh</u>                                    | DSL<br>Post-mortem sampling<br><br><u>Pathology</u>   |  |  |

# AJK Medical College, Muzaffarabad

## Schedule for LM Module - (3<sup>rd</sup> Year)

Week - 2

| DATE→           |  |   |   |   |   |
|-----------------|--|---|---|---|---|
| TIME↓           | MONDAY   | TUESDAY   | WEDNESDAY   | THURSDAY  | FRIDAY  |
| 8:00am-09:00am  | <div>Written Assessment</div> <div>CLINICAL ROTATION</div>             | IPA   | LGIS<br>Post-mortem cranial cavity<br>Dr. Naseer Sheikh                                       | Asphyxia Hanging<br>Dr. Naseer Sheikh                       | LGIS<br>Asphyxia Tramatic / Asphyxia Choking<br>Dr. Naseer Sheikh |
| 9:00am-10:00am  |  |   |   |   |   |
| 10:00-10:30 AM  |  |   | TEA BREAK 10:00 10:30 AM  | CLINICAL ROTATION   |   |
| 10:30am-12:30am |  | LGIS<br>Medico-legal Importance of death<br>Prof. Humayun | LGIS<br>Post-mortem Abdominal cavity / Examination of Mutilated body<br>Dr. Naseer Sheikh     |   | LGIS<br>Asphyxia Smothering<br>Dr. Naseer Sheikh                  |
| 12:30-1:30pm    |  | LGIS<br>Post-mortem<br>Dr. Naseer Sheikh                  |   |   |   |
| 1:30 – 2:00 PM  | LUNCH BREAK 1:30 – 2:00 PM   |   |   |   |   |
| 2:00pm-3:00pm   | LGIS<br>Thanatology, Mode, Mechanism & cause of death<br>Prof. Humayun | SDL   | LGIS<br>Post-mortem examination of decomposed body /Post-mortem Artifact<br>Dr. Naseer Sheikh | LGIS<br>Asphyxia Throatling / Drowning<br>Dr. Naseer Sheikh | LGIS<br>Late changes postmortem<br>Dr. Naseer Sheikh              |
| 3:00pm-4:00pm   |  |   |   |   |   |

# AJK Medical College, Muzaffarabad

## Schedule for LM Module - Class of 2013-18 (3<sup>rd</sup> Year)

Week - 3

| DATE→           |   |  |   |   |  |
|-----------------|---|--|---|---|--|
| TIME↓           | MONDAY  | TUESDAY  | WEDNESDAY   | THURSDAY  | FRIDAY   |
| 8:00am-09:00am  | Trauma injury,<br><br>Dr. Humayun                   | Mechanical Injuries<br><br>Prof. Humayun         | Burns Injury<br><br><u>Dr. Naseer Sheikh</u>  | Electrocution & Lighting<br><br>Prof. Humayun   | Sexual Jurispondence<br>Impotence, virginity, infotality, Pregnancy<br><br>Prof. Humayun |
| 9:00am-10:00am  | CLINICAL ROTATION                                   | Reginal Injuries<br><br><u>Dr. Naseer Sheikh</u> | Effect of cold & Heat<br><br>Prof. Humayun  | CLINICAL ROTATION                               | DSL<br>Ethical concideration in post mortem examination                                  |
| 10:00-10:30 AM  |   | TEA BREAK 10:00 – 10:30 AM                       |   |   |  |
| 10:30am-12:30am |   | Fire-Arm Injury<br><br>Prof. Humayun             | Sampling & Technical condition during post mortem examination<br><br><u>Prof. Anwar</u> |   | <u>SGD</u><br><br><u>Forensic</u>  |
| 12:30-1:30pm    |   |  |   |   |  |
| 1:30 – 2:00 PM  | LUNCH BREAK 1:30 – 2:00 PM                          |  |   |   |  |
| 2:00pm-3:00pm   | Mechanical Injuries<br><br><u>Dr. Naseer Sheikh</u> | Regional Injuries<br><br>Prof. Humayun           |   | Sexual Offences<br><br><u>Dr. Naseer Sheikh</u> | Accidents and its prevention<br><br><u>Brig (R) Ahmed Khan</u>                           |
| 3:00pm-4:00pm   |   |  |   |   |  |





Inquires & trouble shooting

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