



Rawalpindi Medical University

Teaching Program and Training Assessment

DEPARTMENT
OF
FORENSIC MEDICINE &
TOXICOLOGY





DMJ

Diploma in Medical Jurisprudence

**University Residency Program
2023**





PREFACE

The horizons of Medical Education are widening & there has been a steady rise of global interest in Post Graduate Medical Education, an increased awareness of the necessity for experience in education skills for all healthcare professionals and the need for some formal recognition of postgraduate training in **Forensic Medicine & Toxicology**.

We are seeing a rise in the uptake of places on postgraduate courses in medical education, more frequent issues of medical education journals and the further development of e-journals and other new online resources. There is therefore a need to provide active support in *Post Graduate Medical Education* for a larger, national group of colleagues in all specialties and at all stages of their personal professional development.

A summary of the curriculum is incorporated in the logbook for convenience of supervisors and residents. It also allows the clinicians to gain an understanding of what goes into basic science discoveries and drug development. Translational research has an important role to play in medical research, and when used alongside basic science will lead to increased knowledge, discovery and treatment in medicine. A perfect monitoring system of a training program including monitoring of teaching and learning strategies, assessment and Research Activities cannot be denied so we at RMU have incorporated evaluation by Quality Assurance Cell and its comments in the logbook in addition to evaluation by University Training Monitoring Cell (URTMC). Reflection of the supervisor in each and every section of the logbook has been made sure to ensure transparency in the training program. The mission of Rawalpindi Medical University is to improve the health of the communities and we serve through education, biomedical research and health care. As an integral part of this mission, importance of research culture and establishment of a comprehensive research structure and research curriculum for the residents has been formulated and a separate journal for research publications of residents is available.

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Vice Chancellor

Department of Forensic Medicine & Toxicology
Rawalpindi Medical University

Curriculum committee

Chairperson: Dr Romana Malik
Associate Prof
(HOD Forensic Medicine Department (RMU))

Co-Chairperson: Dr Filza Ali
Assistant Professor

Members:

1. Dr Shahida Bashir
Sr Demonstrator
2. Dr Gulzaib Pervaiz
Sr Demonstrator
3. Dr Naila Batool
Sr Demonstrator
4. Dr Shahrukh
Sr Demonstrator
5. Dr Raheel Baig
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Motto

Truth, Wisdom & Service

Vision

Highly recognized and accredited center of excellence in Medical Education, using evidence-based training techniques for development of highly competent health professionals, who are lifelong experiential learner and are socially accountable.

The vision of **Diploma in Medical Jurisprudence Program of Forensic Medicine** Department of Rawalpindi Medical University is:

To provide competency based medical education with a structured training program to equip specialists in the discipline of Forensic Medicine & Toxicology with relevant professional knowledge, skills and ethical values which enable them to apply their acquired expertise at primary and secondary health care organizations as medico legal officers and to actively pursue research, serve as professional role models & clinical leaders, continue self-directed learning, promote social justice by advocating for equitable health care.

Mission

To impart evidence-based research oriented health professional education in order to provide best possible patient care and inculcate the values of mutual respect, ethical practice of healthcare and social accountability.

To train and teach postgraduate students Forensic or State medicine for attaining knowledge and skill to:

1. Identify, examine & prepare report or certificate in medico legal cases/situations in accordance with the law of land.
2. Perform medico legal post-mortem & interpret findings & results of other relevant investigations to logically conclude the cause, manner & time since death.

3. Become aware of Medical ethics & etiquettes, Medical negligence and Medico legal duties
4. To identify responsibilities of the doctors towards patient, profession, society, state & humanity.
5. Acclimatize with relevant legal/court procedures applicable to the medico legal/ medical practice.
6. Identify General principle of analytical environmental, occupational & preventive aspects of toxicology.
7. Ascertain medico legal implications, diagnosis & principles of therapy of common poisons.
8. Classify Different types of Bio-medical waste potential risks & their management.

SECTION A: TRAINING PLAN

A-1: Yearly Training Plan

COURSE	COMPONENTS	ASSESSMENT
DMJ PART I (06 Months)	04 weeks Rotation in Anatomy	Continuous / Formative internal assessment DMJ Part I training assessment. Details in assessment section
	04 weeks Rotation in Pathology	
	04 weeks Rotation in Community Medicine	
	04 weeks Rotation in Psychiatry Department BBH (For Behavioral Sciences)	
	06 Months training in Forensic Medicine	
	02 RMU mandatory workshops on Research Methodology & Biostatistics	
DMJ PART II (1Year & 06 Months)	1 Year Theoretical Training in Forensic Medicine	Continuous / Formative internal assessment Summative Assessment at the end of Two years training Details in assessment section
	6 Months Practical Medico legal Training In DHQ ,Rawalpindi	
	02 RMU mandatory workshops on Research Methodology & Biostatistics	

A-2: Monthly Rotations in Department.

- Anatomy
- Pathology
- Community Medicine
- Psychiatry

A-3: Weekly Academic Activity

- 03 days/Week deputed in different Departments
From Mon-Wed (09am to 12pm)
- 06 days/week in Forensic Medicine
From Mon-Wed (12pm to 02pm)
- 3 days Medico-legal training in DHQ mortuary
From Thurs-Sat (10am to 12pm)
- Daily Forensic Medicine Topic Presentation
From Mon-Wed (12pm to 02pm)
- Journal Club meeting once a week in Forensic Med Dept
On Sat (12pm to 02pm)
- Daily morning meeting in Forensic Medicine Department
- All PGTs will be regularly evaluated by Case Base Presentations,
and Group Discussions

Department of Anatomy
Rawalpindi Medical University
Teaching Schedule for PGs Of
Diploma in Medical Jurisprudence

S No	Date and Time 9am-10am	Day	Topic	Venue	Facilitator
1	4-09-2023	Mon	Orientation Week General Osteology , Axial Skeleton (Skull & Mandible), Axial Skeleton (Vertebrae & Thoracic Cage)	Dept of Anatomy, Main Campus	Dr Arsalan Manzoor Mughal Assistant Professor of Anatomy, Dr Tariq Furqan Senior Instructor, Anatomy
2	5-09-2023	Tues			
3	6-09-2023 9am-10am	Wed			
4	11-09-2023	Mon	Appendicular Skeleton (Pelvis & Shoulder Girdle)	Dept of Anatomy, Main Campus	Dr Tariq Furqan Senior Instructor, Anatomy
5	12-09-2023	Tues	Gross of Major Organ Systems- Heart	Dept of Anatomy, Main Campus	Dr Tariq Furqan Senior Instructor, Anatomy
6	13-09-2023	Wed	Gross of Major Organ Systems- Lungs & Diaphragm	Dept of Anatomy, Main Campus	Dr Tariq Furqan Senior Instructor, Anatomy
7	18-09-2023	Mon	Gross of Major Organ Systems- Liver and Portal system	Dept of Anatomy, Main Campus	Dr Tariq Furqan Senior Instructor, Anatomy
8	19-09-2023 9am-10am	Tues	Gross of Major Organ Systems- Brain and its blood supply	Dept of Anatomy, Main Campus	Dr Tariq Furqan Senior Instructor, Anatomy
9	20-09-2023	Wed	Gametogenesis & Fertilization	Dept of Anatomy, Main Campus	Prof Dr Ayesha Yousaf Professor and Head of Department Anatomy
10	25-09-2023	Mon	Embryonic Period	Dept of Anatomy, Main Campus	Dr Maria Tasleem Assistant Professor Anatomy
11	26-09-2023	Tues	Fetal Membranes and Teratology	Dept of Anatomy, Main Campus	Dr Mohtashim Hina Associate Professor Anatomy
12	27-09-2023	Wed	Fetal age Estimation	Dept of Anatomy, Main Campus	Dr Ifra Saeed Professor of Anatomy and Associate Director DME

Department of Community Medicine
Rawalpindi Medical University
Teaching Schedule for PGs Of
Diploma in Medical Jurisprudence

Sr No	Date and Time 10am-11am	Day	Topic	Venue	Facilitator
1	4-09-2023	Mon	Orientation Week	Dept of Community Med	Dr. Afifa Kulsoom & Dr. Imran Younas
2	5-09-2023	Tues			
3	6-09-2023	Wed			
4	11-09-2023	Mon	Introduction to Biostatics & Biomedical research	Dept of Community Med	Dr. Afifa Kulsoom
5	12-09-2023	Tues	Why research is important??	Dept of Community Med	Dr. Afifa Kulsoom
6	13-09-2023	Wed	Which research to do	Dept of Community Med	Dr. Afifa Kulsoom
7	18-09-2023	Mon	Selecting a field for research	Dept of Community Med	Dr. Imran Younas
8	19-09-2023	Tues	Drivers for health research Participation in National & International research	Dept of Community Med	Dr. Imran Younas
9	20-09-2023	Wed	Participation in Pharmaceutical company research	Dept of Community Med	Dr. Imran Younas
10	25-09-2023	Mon	Where do research ideas come from?? Criteria for a good research topic	Dept of Community Med	Dr Sana Bilal
11	26-09-2023	Tues	Ethics in health research	Dept of Community Med	Dr Sana Bilal
12	27-09-2023	Wed	Writing a Scientific research paper	Dept of Community Med	Dr Sana Bilal

Department of Pathology
Rawalpindi Medical University
Teaching Schedule for PGs Of
Diploma in Medical Jurisprudence

S No	Date and Time 11am-12pm	Day	Topic	Venue	Facilitator
1	4-09-2023	Mon	Orientation Week Cell Injury, Reversible & Irreversible, Fatty Change, Necrosis & Cellular adaptations	Dept of Pathology	Dr. Abid Hassan & Dr. Syeda Aisha
2	5-09-2023	Tues			
3	6-09-2023	Wed			
4	11-09-2023	Mon	Opsonization, Phagocytosis, Cellular components & mediators of inflammation	Dept of Pathology	Dr. Faiza Zafar
5	12-09-2023	Tues	Etiological factors , pathogenesis & classification of Granuloma	Dept of Pathology	Dr. Saeed Lehrasib
6	13-09-2023	Wed	Regeneration & Repair	Dept of Pathology	Dr. Fariha Sardar
7	18-09-2023	Mon	Classification, Etiology and pathogenesis of Edema, Haemorrhage, Thrombosis, Embolism, Infarction & Hyperaemia	Dept of Pathology	Dr. Syed Iqbal Haider
8	19-09-2023	Tues	Shock, classification ,etiology and pathogenesis ,compensatory mechanism involved in shock	Dept of Pathology	Dr. Syed Iqbal Haider
9	20-09-2023	Wed	Dysplasia and Neoplasia, Difference between Beningn & Malignant neoplasm, Common etiological factors for neoplasm	Dept of Pathology	Dr Unaiza Aslam
10	25-09-2023	Mon	Different modes of metastasis, TNM staging system & tumor Grading	Dept of Pathology	Dr Unaiza Aslam
11	26-09-2023	Tues	Humoral and cellular Immunity	Dept of Pathology	Dr. Syeda Fatima Rizvi
12	27-09-2023	Wed	Pneumoconiosis, Definition, types, & morphology, Anthracosis, Asbestosis, Silicosis Baganosis, Occupational cancer	Dept of Pathology	Dr. Nida Fatima

Department of Behavioral science

Rawalpindi Medical University

Teaching Schedule for PGs Of Diploma in Medical Jurisprudence

S No	Date and Time	Day	Topic	Venue	Facilitator
1	07-9-23 9am-10am	Thurs	Orientation Week Bio psychosocial BPS model of health care	Dept of Psychiatry BBH	
2	08-9-23 9am-10am	Fri		Dept of Psychiatry BBH	
3	14-9-23 9am-10am	Thurs	Use of non-medicinal interventions in clinical practice ,Communication & Informational skills ,Counseling	Dept of Psychiatry BBH	
4	15-9-23 9am-10am	Fri	Crises intervention /disaster management , conflict resolution & breaking bad news	Dept of Psychiatry BBH	
5	21-9-23 9am-10am	Thurs	Medical ethics ,professionalism and doctor patient relationship	Dept of Psychiatry BBH	
6	22-9-23 9am-10am	Fri	Four pillars of medical ethics (autonomy ,beneficence nonmalficence and justice)	Dept of Psychiatry BBH	
7	28-9-23 9am-10am	Thurs	Hippocratic oath & Ethical dilemmas in doctors life	Dept of Psychiatry BBH	
8	28-9-23 9am-10am	Fri	Informed consent and confidentiality	Dept of Psychiatry BBH	
9	05-10-23 9am-10am	Thurs	Psychological aspects of health and disease ,Stress and its management	Dept of Psychiatry BBH	
10	06-10-23 9am-10am	Fri	Psychological aspects of pain Psychological aspects of aging	Dept of Psychiatry BBH	

A-4: Daily Training plan Of Forensic Medicine
Topics Of Forensic Medicine Presentations
By Post Graduate Trainees
Academic Roster Of September 2023

Sr No	Dates 12pm-02pm	Days	Presentation Topic	Presenter
1.	04-9-23	Mon	Orientation Week History of legal medicine Principles of legal system in Pakistan & Medico-legal system in other countries Pakistan Medical & Dental Council (constitutions, powers and responsibilities)	
2.	05-9-23	Tues		
3.	06-9-23	Wed		
4.	11-9-23	Mon	Basic matters relevant to the Medical Jurisprudence	
5.	12-9-23	Tues	Medical aspect of law in relation to poisons, dangerous drugs	
6.	13-9-23	Wed	Duties and responsibilities of the doctors in case of Poisoning,	
7.	18-9-23	Mon	Law and Legal procedures	
8.	19-9-23	Tues	Law of evidence-Responsibility of law- (criminal responsibility)	
9.	20-9-23	Wed	Medical Negligence	
10.	25-9-23	Mon	Consent in medical treatment Validity of printed consent forms	
11.	26-9-23	Tues	Privileged communication & its types	
12.	27-9-23	Wed	Medical ethics	

SECTION B: SYLLABUS

B-1: Content Outline

Part I DMJ

FORENSIC ANATOMY

- General osteology (introduction).
- Axial skeleton (skull, mandible, vertebrae, sternum, ribs)
Ossification.
- Human skull & cephalic indices.
- Age and sex determination from skull.
Appendicular skeleton and ossification.
- Age and sex determination from limb bones.
- Height determination from limb bones.
- Sex differences in pelvis.
- Teeth (morphology, variations and age determination).
- Dentition (development and medico-legal aspects).
- Hair (anatomy and development)
- Hair (sex and racial variations)
- General outlines of gross human anatomy and important relations and distribution of major organs of the body.
- Oogenesis; spermatogenesis; fertilization
- Embryonic period
- Placenta; amnion; umbilical cord
- Organogenesis; basic teratology
- Foetal crown-rump + crown-heel length, weight
- Estimation of fetal age

GENERAL & FORENSIC PATHOLOGY

Cell Injury and adaptation

- Cell Injury
- Reversible and Irreversible Injury
- Fatty change, Pigmentation, Pathologic calcification
- Necrosis and Gangrene
- Cellular adaptation
- Atrophy, Hypertrophy, Hyperplasia, Metaplasia, Aplasia

Inflammation

Acute inflammation --- Vascular changes, Chemotaxis,

- Opsonization and Phagocytosis
 - Cellular components and chemical mediators of acute inflammation
- Exudates and transudate

Chronic inflammation

- Etiological factors, pathogenesis and classification
- Granuloma

Cell repair and wound healing

- Regeneration and Repair
- Healing--- steps of wound healing by first and second intention
- Factors affecting healing
- Complications of wound healing

Haemodynamic disorders

- Classification, etiology and pathogenesis of Edema,
- Haemorrhage, Thrombosis, Embolism, Infarction & Hyperaemia.
- Shock, classification, etiology and pathogenesis
- Compensatory mechanisms involved in shock

Neoplasia

- Dysplasia and Neoplasia

- Differences between benign and malignant neoplasms
- Common etiological factors for neoplasia
- Different modes of metastasis
- TNM staging system and tumor grade

Immunity and Hypersensitivity

- Humoral and cellular immunity

Occupational Diseases

- Pneumoconiosis, definition, types and morphology
- Anthracosis.
- Asbestosis
- Silicosis.
- Baganosis
- Occupational cancer, agents, site, and human cancer.

FORENSIC SEROLOGY

- Morphology of blood and their differences from other specimens
- Series of antigen-antibody reactions in blood; ABO blood group system and its basis.
- ABO genotypes / phenotypes, grouping & cross matching and their application in disputed paternity / maternity
- Rh blood group system
- Agglutinins / agglutinogens and their reaction (agglutination).
- Mendelian law of inheritance
- Other body fluids e.g. semen, saliva etc.
- Secretors and non-secretors
- The chemical, immunological and microscopic laboratory techniques commonly used for the examination and identification of body fluids, stains and determination of species.
- Different chemical tests for identification of hair, blood, semen

- Structure of DNA molecules
- DNA replication
- DNA recombinant techniques and its forensic applications
- Technique of sampling for DNA profiling
- Forensic DNA quality control issues.
- Current research and development for forensic DNA instrumentation and applications, statistical interpretation of results and case report writing.
- Students will process mock forensic casework.

LAW RELEVANT TO MEDICAL MAN

- Basic matters relevant to the Medical Jurisprudence
- Pakistan Medical & Dental Council (constitutions, powers and responsibilities) Medical ethics
- Principles of legal system in Pakistan
- Duties and responsibilities of the doctors
- Medico-legal system in other countries
- History of legal medicine
- Medical aspect of law in relation to poisons, dangerous drugs
- Mental Health, Legal Aspect of Insanity Lunacy Act 1912 (Obsolete) and the latest Mental Health Ordinance 2001
- Registration of births and deaths
- Factory Act-workmen compensation
- Social Security (Industrial injuries)
- Crimes of violence-Homicide
- Suicide-Accidents-Infanticide-Sexual assaults
- Medical Negligence
- Privileged communication

- Law and Legal procedures
- Law of evidence-Responsibility of law-(criminal responsibility including testamentary capacity-contract law-writing of will)
- Consent in medical treatment
- Validity of printed consent forms
- General procedure of enquiring into the matters needing medico- legal investigation
- Hudood Ordinance 1979, Qisas and Diyat Ordinance 1990
- injured person medical aid act 2004
- Women protection bill 2006.

BEHAVIOURAL SCIENCES

- Use of non-medicinal interventions in clinical practice
- Bio-psycho-social (BPS) model of health care
- Communication skills
- Counseling
- Informational skills
 - Crisis intervention/disaster management
 - Conflict resolution
 - Breaking bad news
 - Medical ethics, professionalism and doctor-patient relationship
- Hippocratic oath
- Four pillars of medical ethics (autonomy, beneficence, nonmalficence and justice)
- Informed consent and confidentiality
- Ethical dilemmas in a doctor's life
- Psychological aspects of health and disease
- Psychological aspect of health
- Psychological aspect of disease
- Stress and its management

- Psychological aspect of pain
- Psychological aspect of aging

BIostatistics AND RESEARCH METHODOLOGY

- Introduction to bio-statistics
- Introduction to bio- medical research
- Why research is important?
- What research to do?
- Selecting a field for research
- Drivers for health research
- Participation in national and international research
- Participation in pharmaceutical company research
- Where do research ideas come from
- Criteria for a good research topic
- Ethics in health research
- Writing a scientific paper
- Making a scientific presentation
- Searching the literature

Part II DMJ

GENERAL FORENSIC MEDICINE

- **Thanatology:** Definition and diagnosis of death, time since death-changes after death.
- **Trace evidence:** Recognition, collection and preservation of such material
- Identification problems (living-dead)
- Examination of human remains
- Method of re-construction.
- Examination and interpretation of injury / wounds and other medical findings in common physical assaults-various types/ relationship of trauma to disease
- Trauma and pre-existing disease-Regional trauma.

- Medico-legal autopsy-procedure-technique, facilities and accommodation in the mortuaries.
- Exhumation procedure-rules-precautions-value of exhumations

SPECIAL FORENSIC MEDICINE

- Pathology of un-expected death with special emphasis on coronary heart disease and death due to vagal inhibition
- Study of possible methods of violent deaths-methods of disposal of dead bodies
- Infanticide-methods examination of infants and interpretation of findings
- Special trauma-especially explosive; Industrial; automobile-(Railway Aircrafts etc.)
- Determination of disability
- Sexual assaults-Sexual deviations.
- Medicolegal aspect of pregnancy delivery-Abortion-Nullity-Divorce
- Psychiatry from the point of view of diagnosis and disposal
- Forensic aspect of the following specialties;
 - Anesthesiology
 - Radiology.
 - Surgery and Orthopaedic
 - Photography

TOXICOLOGY

- Introduction to Toxicology
- Occupational Toxicology
- Environmental Toxicology
- Ecotoxicology
- Toxicokinetics Routes of Administrations of Poisons
- Action of Poisons

- Factors modifying the action of poisons
- Fate of poisons in body
- Diagnosis of poisoning in living and dead
- Medico-legal duties of doctors in case of suspected poisoning
- Antidotes: types of antidotes and their use
- Approach / Management of the poisoned patient

FORENSIC BIOCHEMISTRY

- Value of “Acid-Base Balance” in the body and its clinical significance
- Biochemistry of asphyxia
- Biochemistry of rigor-mortis.
- Biochemical changes in cerebro-spinal fluid / vitreous humour in relation to time since death
- Biochemistry of autolysis.
- Biochemical changes in blood after death.
- Biochemical changes for assessment of age of wound

B-2: Specific Learning Objectives

Following competencies will be expected from a student completing 2 years' course in DMJ. The student:

1. Should be fully competent to conduct all the medico-legal examinations and autopsies of all type of cases as per law in force at that time, standing instructions from health department and issue the final opinion.
2. Should be fully competent to understand the strand of DNA molecule, DNA finger printing and its application in Forensic Medicine.
3. Should be fully competent to recognize all the macroscopic features in the common diseases found in different organs at autopsy.
4. Should be fully competent to be employed as;
 - a. District Medico-legal officer.
 - b. Chemical examiner to Govt. of Punjab.
 - c. Any other important assignment as Forensic Science officer.
5. Should be able to identify common lapses in Medico-legal system and be able to give suggestion for its improvement keeping in view the recent advances in Forensic Medicine

B-3: Methods Of Teaching & Course Conduction

As a policy, active participation of students at all levels will be encouraged.

Following teaching modalities will be employed:

1. Lectures
2. Seminar Presentation and Journal Club Presentations
3. Group Discussions
4. Grand Rounds
5. Clinico-pathological conferences
6. SEQ as assignments on the content areas
7. Skill teaching in forensic labs and medico-legal sections of hospitals
8. Self study, assignments and use of internet

In addition to the conventional teaching methodologies following interactive strategies will also be introduced to improve both communication and clinical skills:

Monthly Student Meetings

Each affiliated medical college approved to conduct training for DMJ will provide a room for student meetings/discussions such as:

- a. Journal Club Meeting
- b. Core Curriculum Meetings
- c. Skill Development

a. Journal Club Meeting

Two hours per month should be allocated to the presentation and discussion of a recent journal article related to Forensic Medicine & Toxicology. The article should be critically evaluated and its applicable results should be highlighted, which can be incorporated in medico legal practice / services. Record of all such articles should be maintained in the relevant department of each medical college.

Students of different medical colleges may be given an opportunity to share all such interesting articles with each other.

b. Core Curriculum Meetings

All the core topics of DMJ should be thoroughly discussed during these sessions. The duration of each session should be at least two hours once a month. It should be chaired by the chief student (elected by the students of the relevant diploma). Each student should be given an opportunity to brainstorm all topics included in the course and to generate new ideas regarding the improvement of the course structure.

c. Skill Development

Two hours twice a month should be assigned for learning and practicing clinical skills. Two hours twice a month should be assigned for learning and practicing medico-legal, autopsy conduction
List of skills to be learnt during these sessions is as follows:

- i. Communication skills.
- ii. Physical Examination related to clinical examinations and medico-legal, autopsy conduction.
- iii. Practical Skills i.e., use of relevant autopsy instruments.
- iv. Presentation Skills: Power-point, lectures, small group discussions, article presentation etc.
- v. Research and Scientific Writing
- vi. Management of Toxicological Emergencies in Casualty department.
- vii. For acquisition of procedural skills (mentioned in Log book) opportunities during medicolegal and autopsy postings should be availed.

Annual Grand Meeting

Once a year all students enrolled for DMJ should be invited to the annual meeting at RMU Rawalpindi.

One full day will be allocated to this event. All the chief students will present their annual reports. Issues and concerns related to their relevant diploma courses may be discussed during the meeting.

Feedback should be collected and also suggestions can be sought in order to involve students in decision making. The research work and their literary work may also be displayed. In the evening an informal gathering and dinner should be arranged. This will help in creating a sense of belonging and ownership among students and the faculty.

LOG BOOK

The trainees must maintain a log book and get it signed regularly by the supervisor. A complete and duly certified log book should be part of the requirement to sit for DMJ examination. Log book should include adequate number of diagnostic and therapeutic procedures, routine and emergency management of patients, case presentation of medico-legal, trauma, poisoning and sexual assault in CPCs, journal club meetings and literature review.

Proposed Format of Log Book is as follows:

Candidate's Name:-----

Roll No.-----

PROCEDURES:

1. Techniques of autopsy incisions
2. Techniques of neck dissection layer by layer
3. Opening of body cavities
4. Demonstration/examination of coronary arteries by stepwise dissection of heart and check their patency
5. Demonstration of pneumothorax, fat embolism and pulmonary embolism at autopsy table
6. Differentiate between blackening and tattooing of the fire arm case at autopsy table
7. Differentiate between bruise and postmortem clot at autopsy table.
8. Techniques of using stomach wash tube in case of poisoning
9. Collection, sampling, sealing and dispatch of appropriate material in case of poisoning, rape/ zina, sodomy etc. to the chemical examiner to the Govt. of Punjab Rawalpindi
10. Collection, sampling, sealing and dispatch of appropriate material/viscera in case of suspected disease to the Bacteriologist Govt. of Punjab Lahore

AUTOPSY CASES HANDLED

No	Date	Name, Age & Sex of victim	Examination of the case, Injuries recorded, Kind of weapon, viscera sent to the chemical examiner/ Bacteriologist If any	Scrutiny of the dead body/ clothes	Scrutiny/diss ection of the dead body. Any foreign body recovered.	Cause of Death	Probable time that elapsed between; Injury & Death Death & postmortem examination	Supervis or's signatur e
1.								
2.								

MEDICO-LEGAL CASES HANDLED

No.	Date	Sex of Patient. Admitted /not admit. Time of arrival	Examination of the case, Injuries recorded, Kind of weapon, Investigations advised	Type of the assault	Nature of injuries KUO/ Declared	Probable duration of injuries	Supervisor's signature
1.							
2.							

Poisoning Cases Handled

No.	Date	Name, Age & Sex of Patient. Admission no.	Examination of the case, Signs and symptoms observed and recorded. Clinical condition	Samples sent to the chemical examiner/ Any other investigation prescribed	Internal scrutiny/ dissection of the dead body. Any foreign body recovered.	Treatment of the case conducted	Supervisor's signature
1.							
2.							

SEMINAR/JOURNAL CLUB PRESENTATION

Sr #	Date	Topic	Supervisor's Signature

Evaluation Record

Sr #	Date	Method of evaluation (Oral, Practical, Theory)	Rating	Supervisor's Signature

LITERATURE REVIEW

Students will be assigned a clinical problem; most commonly encountered in the relevant specialty and will be specifically trained to review literature in the relevant field and write a **'Review of an Article'** comprising of:

- Topic
- Introduction
- Discussion of the reviewed literature
- Conclusion
- References

SECTION - C: ASSESSMENT

It will consist of action and professional growth **oriented student centered integrated assessment** with an additional component of **informal internal assessment, formative assessment** and measurement-based **summative assessment**.

Student-Centered Integrated Assessment

It views students as decision-makers in need of information about their own performance. Integrated Assessment is meant to give students responsibility for deciding what to evaluate, as well as how to evaluate it, encourages students to **'own'** the evaluation and to use it as a basis for self-improvement. Therefore, it tends to be growth oriented, student-controlled, collaborative, dynamic, contextualized, informal, flexible and action-oriented.

In the proposed curriculum, it will be based on:

- Self Assessment by the student
- Peer Assessment

- Informal Internal Assessment by the Faculty

Self Assessment by the Student

Each student will be provided with a pre-designed self-assessment form to evaluate his/her level of comfort and competency in dealing with different relevant clinical situations. It will be the responsibility of the student to correctly identify his/her areas of weakness and to take appropriate measures to address those weaknesses.

Peer Assessment

The students will also be expected to evaluate their peers after the monthly small group meeting. These should be followed by a

constructive feedback according to the prescribed guidelines and should be non-judgmental in nature. This will enable students to become good mentors in future.

Informal Internal Assessment by the Faculty

There will be no formal allocation of marks for the component of Internal Assessment so that students are willing to confront their weaknesses rather than hiding them from their instructors.

It will include:

- a. Punctuality
- b. Medico legal work
- c. Monthly assessment (written tests to indicate particular areas of weaknesses)
- d. Participation in interactive sessions

C-1: Formative Assessment

It will help to improve the existing instructional methods and the curriculum in use.

Feedback to the faculty by the students:

After every three months students will be providing a written feedback regarding their course components and teaching methods. This will help to identify strengths and weaknesses of the relevant course, faculty members and to ascertain areas for further improvement.

C – 2: Multisource Feedback (360 Degree Evaluation)

Assessment Records/Evaluation Performance's Shift to main LOG BOOK	Evidence of all available assessment records and six monthly 360 degree evaluation records should be mentioned in this section to have a reflection about resident's medical knowledge, patient care, communication skills, system based learning, practice based learning and professionalism. Copies of the result cards/assessment records should be attached as evidence.
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C- 3: Monthly Written Test MCQ

SR NO	TOPIC
1	
2	
3	
4	

C-4: Summative assessment:

Details of TOS for written and clinical exam in Curriculum.

It will be carried out at the end of the programme to empirically evaluate **cognitive, psychomotor** and **affective domains** in order to award diplomas for successful completion of courses.

Eligibility to Appear in Final Examination

- Only those candidates will be eligible to take final examination, who have passed Part 1 examination (after 6 months of education) and have completed two years of structured/supervised training programme.
- Candidates who have completed their log books and hold certificates of 75% attendance should be allowed to sit for the exam
- The application for the final examination will be forwarded with recommendations of the supervisor
- Only those candidates who qualify in theory will be called for practical/ clinical examination

DMJ Examination

Part I DMJ

Topics included;

1. Forensic Anatomy (15 MCQs)
2. Forensic & General Pathology (15 MCQs)
3. Forensic Serology (15 MCQs)
4. Law relevant to medical man (40 MCQs)
5. Behavioural Sciences (10 MCQs)

6. Introduction to Biostatistics and Research (05 MCQs)

Components of the Part 1 examination

MCQ Paper 100 One Best Type

Total Marks 100 Marks

Part II DMJ

Topics included in paper 1

1. General forensic medicine
2. Special forensic medicine

Topics included in paper 2

1. Toxicology (80 % component)
2. Forensic Biochemistry (20 % component)

Part II Examination

Theory

Paper I 100 Marks 3 Hours

10 SEQs (No Choice) 50 Marks

50 MCQs 50 Marks

Paper II 100 Marks 3 Hours

10 SEQs (No Choice) 50 Marks

50 MCQs 50 Marks

The candidates who pass in theory papers, will be eligible to appear in the practical / clinical & viva voce.

OSCE 90 Marks

10 stations each carrying 9 marks of 10 minutes duration; each evaluating performance based assessment with five of them interactive

Clinical 90 Marks

Four short cases each carrying 15 marks and one long case of 30 marks.

Components of the Part II examination

Theory paper 1 100 marks

Theory paper 2 100 marks

Clinical/Oral 180 marks

Log Book 20 marks

Total Marks 400

A panel of four examiners from Forensic Medicine and Toxicology, Biochemistry and Pharmacology (One internal and two external) will be appointed for practical examination. Each component of practical examination will be assessed by two examiners awarding marks simultaneously and independently. The final score awarded will be an average score, as agreed by both examiners.

Pass Percentage and Other Regulations Regarding Examination

- Criterion referenced assessment principles will be used
- 20 marks for the log book will be included in the OSCE component
- 60% marks will be a pass score in each component
- Candidates failing in any one component will have to reappear the entire examination
- A maximum of 5 attempts to sit for the examination will be allowed, to be availed within 3 calendar years of the first attempt Re-admission in DMJ course is not permissible under any circumstances

Recommended learning resources

CORE TEXTBOOK

- Anderson Pathology (Latest Edition).
- Knight's Forensic Pathology by Knight (Latest Edition).
- Forensic Pathology by Bernard Knight (Latest Edition).
- Principle And Practice Of Forensic Medicine By Nasib R Awan (Latest Edition).
- Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology (Latest Edition).
- Gradwohl's Legal Medicine By Francis E. Camps (Latest Edition).
- Medicolegal Investigation Of Gunshot Wound By Abdullah Fateh (Latest Edition).
- Robbin's. Pathologic Basis of Diseases
- Last R. J. Anatomy (Regional and Applied)
- Snell. Clinical Anatomy.
- Langman J. Embryology
- Introduction To Statistics, Publishing Co. Inc, New York.
- Spiegel, Murray R.: Theory & Problems Of Statistics, Sehawm Publishing Co., New York.